Agglomeration and Polarization

The case of Chacao, Caracas

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Contents

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Abbreviations

AMC	*Area Metropolitana de Caracas* (Metropolitan Area of Caracas)
Bs	*Bolívares* (Venezuelan currency, 1000 Bs ≈ 0.5 $US, in 2004)
CBD	Central Business District
DC	*Distrito Capital* (Capital District)
DF	*Distrito Federal* (Federal District)
DMC	*Distrito Metropolitano de Caracas* (Metropolitan District of Caracas)
FDI	Foreign Direct Investment
LEDMC	*Ley Especial sobre el Régimen del Distrito Metropolitano de Caracas* (Special Law For the Metropolitan District of Caracas)
LORM	*Ley Orgánica de Régimen Municipal* (Organic Law for Municipal Government)
ICT	Information and Communications Technology
IMF	International Monetary Fund
LAC	Latin America
LEDMC	*Ley Especial del Distrito Metropolitana de Caracas* (Special Law concerning the Metropolitan District of Caracas)
LORM	*Ley Orgánica de Régimen Municipal* (Organic Law for Municipal Government)
OLPU	*Oficina Local de Planeamiento Urbano* (Local Office for Urban Planning, Chacao)
RMC	*Region Metropolitana de Caracas* (Metropolitan Region of Caracas)
TNC	Transnational Company
UCV	*Universidad Central de Venezuela* (Central University of Venezuela)
WTO	World Trade Organization

Introduction

Research question

The topic for this thesis is urban economic agglomeration and polarization. The thesis takes the form of a qualitative research project with the current process of economic agglomeration in the municipality of Chacao in Caracas, Venezuela as a *case*. Within the poverty-ridden city of Caracas, an affluent business district is developing on the territory of Chacao. The aim of the project is to understand what the causes and consequences of this agglomeration are in an urban context characterized by stark socio-economic differences. The research question for the study has the following formulation:

- What are the causes of the agglomeration of private investments in the municipality of Chacao and how does that agglomeration relate to inter-municipal polarization in Caracas?

Academic and social relevance

Much literature on contemporary changes in urban form suggests that recent developments in information and communications technologies (ICTs) herald the end of agglomeration economies. The study of a contemporary urban agglomeration process is therefore an interesting way to shed new light on the complex relationship between ICTs and the dynamics of urban geographies. In times of economic and political restructuring it is also important to understand the role of new strategies for urban governance in the transformation of urban geographies. A global economy with fewer constraints on private capital poses new challenges for city planning and it is important to understand how private investments affect the development of cities. For cities in the South such an understanding is especially important as limited resources could lead governments faced with the lure of foreign capital investments to opt for policies that might compromise longer-term development goals.

A particular focus for this study is uneven intra-urban development. A large percentage of the world's poor are already living in cities, and while urbanization levels are rising world-wide with over half of the world's population already living in urban environments, three-quarters of global population growth occurs in urban areas in the South.

This means that poverty in the South increasingly needs to be addressed as an urban issue, and in this respect social differences and intra-urban polarization are important topics that call for more research.

In a report on Venezuela from 1997, the World Bank asserts that, *"As the most urbanized nation in LAC (92%) efficient and equitable urban centers are critical to Venezuela's sustainable development"* (World Bank 1997, iv). Along the same lines a UN report on cities in the global economy (UNCHS 2001) draws attention to how social contrasts are increasing *within* cities across the world. The coexistence of thriving business districts, affluent neighborhoods and slums show that economic growth is not always a solution to poverty. According to the report, new geographies of centrality and marginality are appearing on an intra-urban scale as the downtown areas of metropolitan districts may receive massive investments in real estate and telecommunications while low-income areas are starved for resources. The contrast between Chacao and its surroundings in Caracas provides an exemplary illustration of such emerging geographies of difference.

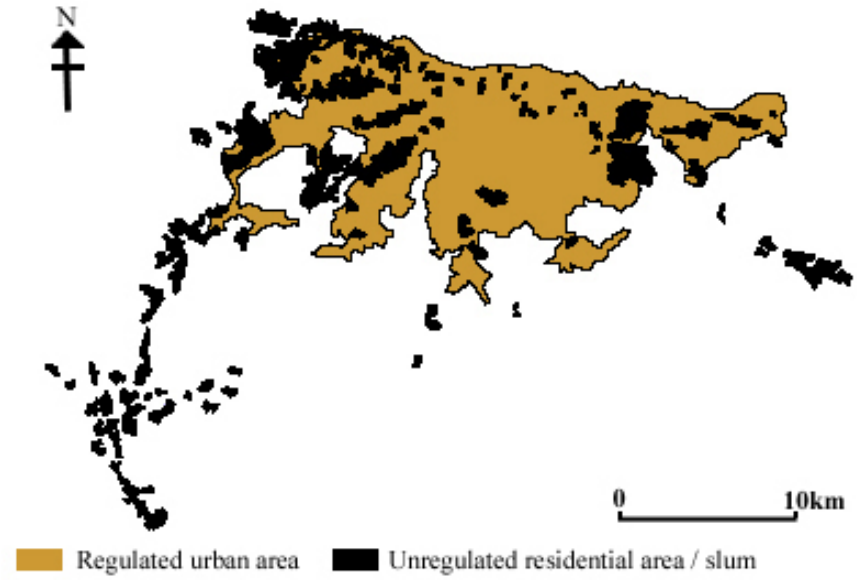
The structure of this thesis

The thesis has 5 chapters. The first chapter is a brief introduction to Caracas and Chacao; it provides a description of the area under study and comments on some geographic, social, political and economic aspects of the Venezuelan reality that form an important background and context for the developments in Caracas and Chacao. Chapter 2 is a review of recent literature and research on urban restructuring processes and their relation to new ICTs. The idea is to bring together literature on entrepreneurial governance strategies with literature on new ICTs and urban form. Chapter 3 describes the empirical data that form the basis for the present investigation, and presents the procedures that were used in their recollection. Chapter 4 presents and analyses the data and is the central part of the thesis. The chapter is divided into three sections dealing with the issues of ICT-networks, the location preferences of firms and administrative issues. Chapter 5 presents a conclusion from the analysis in brief.

1. Background: Caracas

Caracas is the capital of the Bolivarian Republic of Venezuela. It is the administrative and economic center of the country and the location of the administrative and judicial institutions of the national government as well as of the headquarters of practically all the major public and private companies that operate in the country. Most of the economic activity in Caracas is to be found in the finance and service sectors, often related to the oil production which is the country's primary export.

The oil boom in the 1920s spurred a rapid and continuous population growth in Venezuela's urban regions as the prospect of oil-related jobs in the cities resulted in a massive rural-urban migration that combined with substantial endogenous urban growth, has made Venezuela the most urbanized country of Latin America with an urbanization level of 92% (World Bank 1997). As the capital, Caracas has been particularly affected by this development: By 2001, 28 times as many inhabitants lived within the confines of the valley of Caracas as in 1920, and that is without taking into consideration what probably amounts to hundreds of thousands of unregistered residents, many of which have settled in the unregulated slum areas in the unstable hill-sides around the Valley of Caracas (see map 1) (Census 2001, Negron 1996, Perna 1981, World Bank 1997).

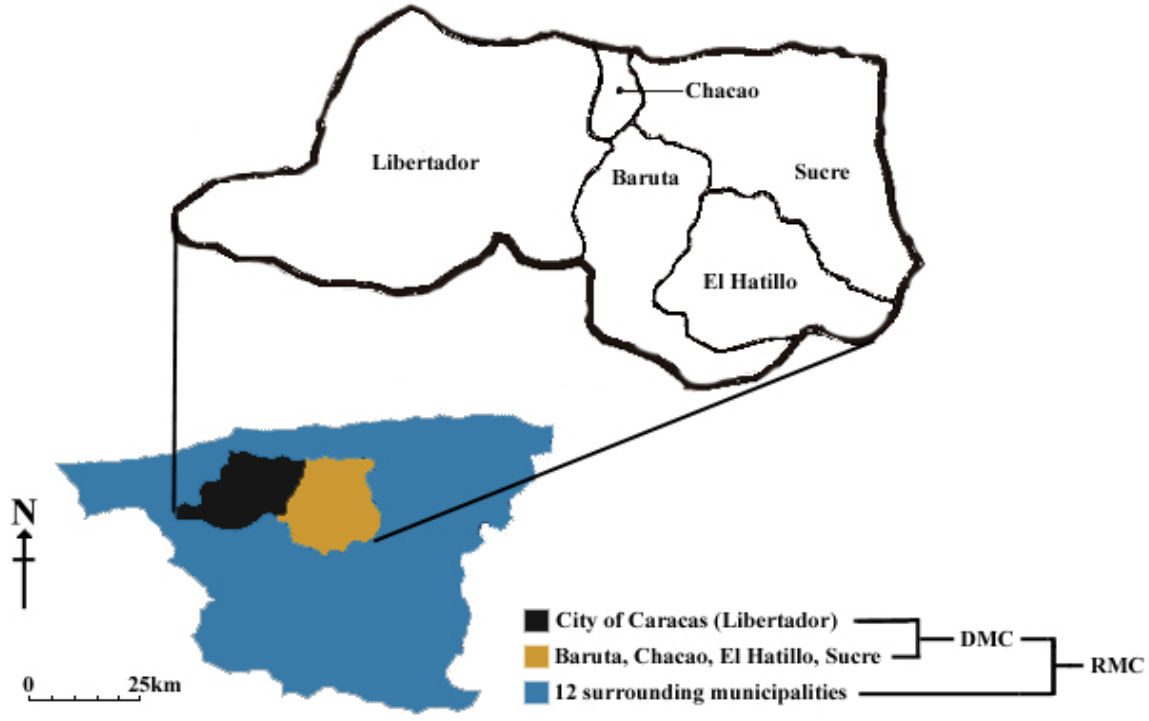


Map 1. Slum areas in the DMC, 1990s. Source: Barrios 2002.

1.1 Geographic and administrative limits

The slim valley within which the city of Caracas is situated stretches 30 km from West to East with the historical center situated in the western part. Historically the city has been expanding slowly towards the East, following the shape of the Valley of Caracas which by now is entirely urbanized apart from the northern hills that belong to the National Reserve of the El Avila Mountain.

In the course of its rapid growth throughout the 20th century, the urban nucleus of Caracas has expanded far beyond its original limits. Depending on the context, the term 'Caracas' is used to denote either the historical city of Caracas that today corresponds with the municipality of Libertador; or it is used to denote the conjunction of Libertador and the remaining 4 municipalities within the Valley of Caracas that today corresponds with the administrative area of the *Distrito Metropolitano de Caracas* (DMC, Metropolitan District of Caracas); or, lastly, it is sometimes used to denote the functionally integrated conjunction of the DMC with its 12 surrounding municipalities that form the Metropolitan Region of Caracas (RMC, *Región Metropolitana de Caracas*) (see map 2) (Barrios 2001, Paiva 2002).



Map 2. Municipalities of DMC, RMC. Source: Barrios 2002.

The most common delimitation of 'Caracas' today is the DMC – the five municipalities within the Valley of Caracas. The DMC encompasses more than 96% of the population of

the RMC and the hill sides of the Valley also function as a 'natural' delimitation for the city. In this thesis the term *'Caracas' is used interchangeably with 'DMC' unless otherwise specified.*

The institutional framework for the administration of the DMC is complex, bringing together local, metropolitan, regional, and central levels of government. The DMC is organized as a two-level municipal system of government with the *Alcaldía Metropolitana* (AM, Metropolitan Municipality) encompassing the 5 local municipalities Sucre, Baruta, El Hatillo, Chacao, and Libertador. The first four of these municipalities belong to the state of Miranda, while the last is the sole municipality of the *Distrito Capital* (DC, Capital District).

1.2 Political Tension

Hugo Rafael Chávez Frías was elected President of Venezuela in 1998 on a program that promised a new direction for Venezuelan politics and an end to the neoliberal policies of the 1990s. The country's poor majority supported Chávez' call for social reforms, a new constitution and continued state ownership of the national oil company PDVSA.
A new constitution was in place by 1999, and major changes were undertaken in PDVSA in what practically constituted a re-nationalization of the country's oil-assets that according to the government had been under the *de facto* control of private interests.

The traditional elite's discontent with the changes led to a short lived *coup d'etat* in April 2002 when the President was kidnapped but later reinstated after massive popular protest.

A few months later, intending to raise public opinion against the President and thus forcing him to resign, the political opposition dealt a serious blow to the country's economy by bringing the country's oil production to a virtual halt for several weeks between December 2002 and January 2003. The importance of the oil sector for the Venezuelan economy cannot be overestimated and this event spurred an unprecedented social and economic crisis that revealed a profound political polarization of Venezuelan society. Contrary to the expectations of the opposition the crisis failed to weaken the popular support for the Chávez government: in August 2004 a large majority of Venezuelan voters confirmed their support for the President and his politics in a national referendum over whether to recall the Presidential mandate. The referendum that was held on the request of the opposition received the highest turnout in the history of Venezuela.

This tense political situation forms an important background for this study which seeks to understand the uneven nature of development in Caracas. The political antagonism is reflected in the political geography of Caracas in the sense that the different municipal administrations are either 'pro-' or 'anti-Chávez', with all the implications that brings for their will to cooperate with each other and with the central government. In the summer of 2004 the Mayors of Chacao, Baruta, El Hatillo and the AM were in opposition to the government. Shortly after this study was undertaken in the autumn of 2004, Mayors loyal to the Chávez government won popular vote in local elections in Libertador and in the AM.

1.3 Major Characteristics and Developments in the Urban Morphology of Caracas

Caracas' cityscape is characterized by the enormous contrast between the precarious slum dwellings along the hillsides of the valley (see photo 1), and the luxurious villas and high-tech skyscrapers in the downtown business areas. The economic reform package launched by the Pérez government in 1989 spurred a popular uprising in Caracas (The '*Caracazo*') when slum-dwellers poured down from the hill-sides into the wealthy areas in the center. That event has left the wealthier segments of society with a fear reflected in Caracas' extensive 'fortress architecture' of walls and gated communities (see photos 2 and 3) that separate the rich from the poor in the slum areas where more than half the urban population resides (WB 1992).

Photo 1. Hill side slum in Caracas. Photograph: Are Nagoda

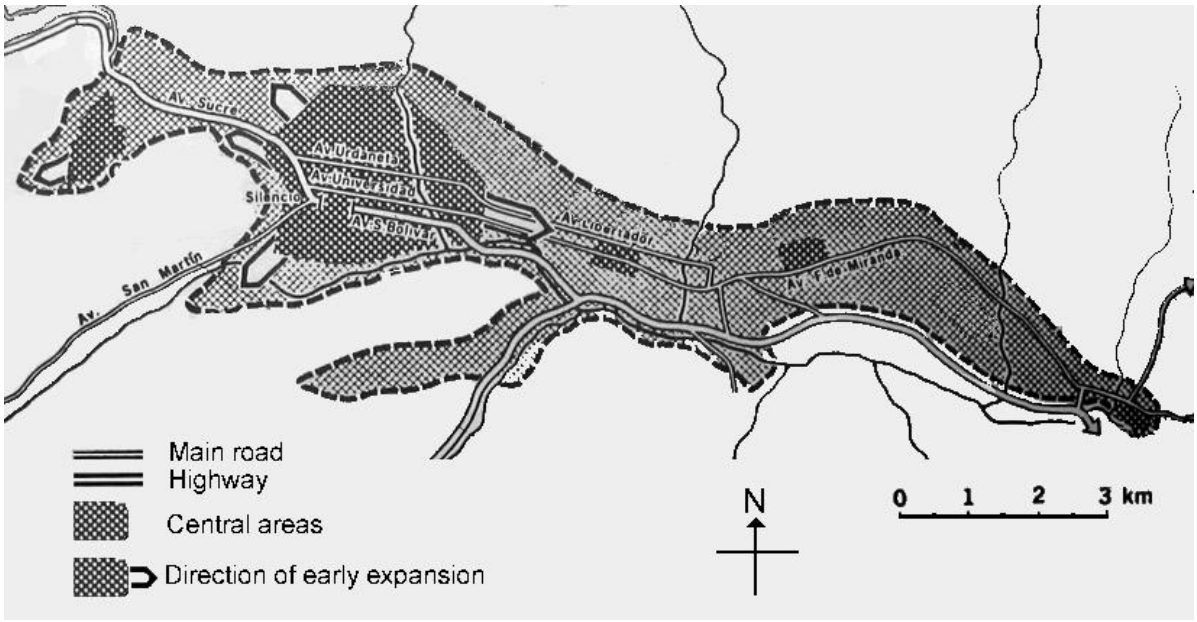
Photo 2. Guarded entrance to gated community in Caracas. Photograph: Are Nagoda.

Photo 3. Electric fence protecting residential area. Photograph: Are Nagoda.

While most of Caracas is suffering from disinvestment and various degrees of decay there are 'islands' of well kept, and well guarded, wealth: there are the gated communities and the private confines of banks and firms scattered across town and especially to the East where large areas seem to have avoided the effects of economic recession.

Up until the 1970s the city had developed in the form of concentric circles around the historical center of Libertador where all the national public institutions and the large private enterprises were located. Later, towards the end of the 1970s a gradual saturation of the center combined with the opening of a metro line (running West-East) spurred an expansion of the center eastwards towards Sabana Grande in the East of Libertador. However Libertador soon proved unable to expand the infrastructural capacity of these areas sufficiently to sustain the continued growth of the city. The rapid population growth increased the demand for public and private services and the increasing intensity of the activity in the central areas brought with it serious traffic and security problems.

It is in this period, from the end of the 1980s, that Chacao has appeared as a new pole of corporate development in Caracas changing the focus of business activity away from Libertador and the traditional center.



Map 3. Expansion of the center in the 1960/70s. Chacao is the fourth central area from the left. Source: Perna 1981.

1.4 Chacao

Chacao borders to Libertador, to the West; Sucre, to the East; Baruta to the South; and to the state of Vargas to the North of the El Avila Mountain (see maps 2 and 4). The municipality covers 36 km² out of which only 9 km² are urbanized; the remaining part belongs to the El Avila National Park and is uninhabited. The urban territory of Chacao is relatively flat and slightly elevated. (Gonzales 1998).

Walking Eastwards from the historical center of Caracas one cannot fail to notice the border between Libertador and Chacao. Not only because of the aspect of the buildings that appear to be older and more run-down in Libertador, but also because there is much more activity on the streets there. Along the Sabana Grande boulevard in Libertador the informal commercial activity attracts a lot of people during the daytime transforming the boulevard into a market place, and then, where the Sabana Grande Boulevard terminates at Chacaíto, all this activity suddenly stops because of the Chacao government's strict enforcement of a local ban on informal commerce. In Chacao the major shopping areas are to be found within the private confines of its 7 shopping malls, which include Latin America's largest (Sambil). Approaching Chacao by car, the municipal border is perhaps even more striking as one is welcomed by large road signs carrying the municipal logo, saying "*You are now in Safe Territory*."

Photo 4. "You are now in Safe Territory". Photograph: Are Nagoda

Higher standard of built environment in Chacao

The built environment in Chacao does not echo the somewhat deteriorated state of most of the city. While there are areas that are well maintained in all of the municipalities, this is true for the entire municipality of Chacao. Chacao has got only an insignificant number of slum-dwellers, according to the national census of 2001 a total of 39 people. The residential areas of Chacao, located mostly to the North are characterized by low-rise apartment buildings, villas and the occasional mansion; in the downtown area of Chacao, the many high-rise buildings with their shiny glass walls create a big-city atmosphere worthy of a modern metropolis (see photo 5).

Photo 5. Skyscrapers in Chacao.
Photograph: Are Nagoda

There are few public green areas in Chacao apart from the mountainous national park to the North. However Chacao borders to a large park to the East (*Parque Del Este)* in the municipality Sucre, and Chacao also has a large private green area with a golf course (*Urbanización Country Club*).

In recent years Chacao has proven to be a more attractive office location than any other area in the city. While before, almost all the high-rise buildings associated with the producer-service and finance sectors were to be found in the central business district (CBD) located near the buildings of the national government in the historical center, there has been a remarkable increase in business activity in two areas to the East of the historical center during the last decade and most intensely between 1997 and 2000 (FVI 2003, Sociologist at Penthouse). The most important of these new areas has been called Caracas' 'Emerging Financial Center' or Caracas' new CBD. It has the following geographic boundaries (see map 4): to the West, Chacaíto; to the East, Los Palos Grandes; to the North, La Castellana, Altamira, and Los Palos Grandes; to the South, El Rosal (FVI 2003). In other words the area is placed firmly within the municipality of Chacao. The other area which has also seen a notable although inferior increase in business activity in recent

years is located to the South of Chacao in the municipality of Baruta. The focus of this study is on the development in Chacao which has been much more dramatic.

Map 4. Emerging CBD in Chacao. Source: Based on www.chacao.gov.ve and FVI 2003.

Prestigious high-rise buildings with company logos have been popping up like mushrooms in Chacao while similar buildings in the historical center have been abandoned. Chacao has only got 65 000 inhabitants (less than 2.35% of the population of the DMC), and with an extension of only 5% of the city area Chacao is the smallest of the five municipalities that make up the Metropolitan District of Caracas, yet approximately 55% of the office real estate activity of Caracas is produced in Chacao (INE 2001, President of Chacón & Associates).

1.5 The Great Change

As mentioned the Pérez government initiated a far-reaching economic and political reform program in 1989. This market-oriented reform program, called *El Gran Virage* (The Great Change), received ample support from World Bank and the International Monetary Fund (IMF) in the form of policy advice and a total of $6.7 billion in loans. It was aimed at reducing government intervention, liberalizing the economy, the privatization of public enterprises including the national telecommunications company CANTV, and the political decentralization of government functions (World Bank 1992). These reforms have had a great impact on recent developments in Caracas and as such they provide an important context for this study of the agglomeration in Chacao. In the following I will consider how the liberalization and decentralization efforts of The Great Change may have contributed to Chacao's strengthened position within the DMC.

Deindustrialization and growth in the service sector

Caracas has never been a very significant industrial city with only 18% of its population employed in industry in 1989 and since the Great Change the city has experienced significant deindustrialization. Between 1989 and 1997 there was a direct loss of over 45 thousand jobs in the industrial sector in the DMC. This deindustrialization cannot be understood as a relocation of industry to the metropolitan periphery as has been observed in other large cities, in fact the RMC as a whole experienced a direct loss of over 52 thousand jobs over the same period. The deindustrialization accentuates the growing importance of the service sector in the city's economy. In 1997 78.3% of formal employment in Caracas was to be found in the service sector, up from 73.4% in 1989. Within the service sector, it is the share of jobs in the *upper range* services like real estate finance, insurance, and other producer services that has increased the most. In 1997 Caracas was the location of almost half of the national employment in this sub-sector (Barrios 2001).

The deindustrialization and the increasing importance of the service sector affects the city in a geographically biased way as employment in the service sector is associated with the central areas of the city while the jobs in industry are usually found in more peripherical areas. In Caracas this bias is particularly articulated when it comes to upper range, producer services and the growth of employment in that sub-sector is likely to benefit the financial districts in Libertador and Chacao almost exclusively.

The real estate market and Chacao

The implementation of the reform program involved reducing the government's role in the economy by eliminating housing programs and development funds, and by privatizing or liquidating public banks. Also, the interest rates and the rules regulating the allocation of credits and foreign ownership were liberalized. These liberalization efforts are thought to have greatly strengthened the private real estate and finance sectors of the economy. Certainly in Caracas a great number of new buildings were constructed at the beginning of the 1990s and especially towards the East in Chacao where there was attractive land available for office development.

At the same time the opening-up of the economy allowed many foreign companies to establish themselves in Venezuela. In the important petroleum sector alone 10 new companies, among others Shell, British Petroleum and Statoil, set up headquarters in Caracas in the beginning of the 1990s. These new companies required a large quantity of offices of a high standard, and that real-estate was available in Chacao. Later, and also as a consequence of the increased economic openness, a lot of foreign-owned franchise chains established in Caracas and these enterprises also preferred to locate towards the East where the purchasing power and potential demand was higher.

This building-boom was brought to an end as political instability brought on a financial crisis in 1994. The banks that had been financing the extensive real-estate developments suffered an acute liquidity crisis and could not come to terms with their obligations. A great deal of the lost values, estimated to some 20% of GDP or around 20 billion $US, were represented in the mass of newly constructed office buildings. Chacao was particularly affected by this because much of this corporate real estate was situated in that municipality, and following 1994 the owners, often banks, were forced to sell it *en masse*. This meant that a few large investors were able to buy a significant amount of office buildings at the price of construction, creating a new situation in the real-estate market – a high number of offices on few hands made office space available for letting, while new construction came to a halt because the construction and finance sectors feared the reoccurrence of a crisis situation.

A demand and a stable price level, for office space has been maintained in Chacao partly because the availability of let office space has made the entry costs lower for firms wishing to establish in first class offices in the municipality. While much of the city is characterized

by economic recession, the relative stability in Chacao is also understood to make it a relatively safe area to invest in.

The Decentralization

The administrative situation in Caracas of today was put into effect with the *Ley Especial sobre el Régimen del Distrito Metropolitano de Caracas* (LEDMC, Special Law for the Government of the Metropolitan District of Caracas*)* of March 2000 which is based on the new Venezuelan constitution of 1999. However the current administrative situation is fundamentally characterized by the major changes brought about with the reform program of 1989. This program included drastic measures not only towards economic liberalization but also towards political decentralization, and with the *Ley Orgánica de Régimen Municipal* (LORM, Organic Law for Municipal Government) of June 1989 a process of administrative fragmentation and decentralization was implemented in Caracas. Significantly the LORM conceded the municipalities a much greater degree of budgetary independence and responsibility, and it also simplified the procedure for creating new municipalities.

In Caracas the law had almost immediate consequences for the administrative division. By the early 1990s the district of Sucre, belonging to the State of Miranda and forming part of what was then called the *Area Metropolitana de Caracas* (AMC, Metropolitan Area of Caracas) and today is called the DMC, had been replaced by the 4 municipalities Sucre, Baruta, El Hatillo, and Chacao. Chacao's history as a municipality then is very short. It was a parish of the municipality of Sucre until November 13th 1991 when the state of Miranda approved a law that provided Chacao with status of an autonomous municipality. The promulgation of this law followed an application issued by a local interest group (*Junta Promotora*). According to the LORM of 1989 any self sustained community of more than 10.000 registered voters may be granted municipal status if such a request is issued with the support of a minimum of 20% of the registered voters in the area. The final decision on whether to create the new municipality is taken by the legal assembly of the state to which the municipality belongs.

Fragmentation and socioeconomic differences

Although the administrative division in Caracas is relatively new, it is striking how well defined the municipal borders are by the visible evidence of socio-economic differences between Eastern and Western Caracas. To understand the uneven development in Caracas it

is necessary to explore the relationship between the administrative division and the socio-economic differences in the city. This question is relevant to the topic of this thesis because there seems to be a connection between Chacao's relative prosperity and the agglomeration of enterprises in Chacao, and the territorial differences in Caracas, especially between the municipalities of Libertador and Chacao, do seem to have intensified over the years.

Historically Chacao developed as a wealthy suburb to central Caracas. According to a Sociologist at Penthouse, a real estate consultancy in Caracas, the development of the territory as a residential area began in the 1950s – the flat, slightly elevated and cooler areas of the Chacao plain provided an ideal residential location for the richer segments of society in Caracas that wanted to live away from the increasingly noisy and poverty ridden downtown. The development towards the East also coincides with the construction of Caracas' first two highways that run from the center eastwards, connecting the wealthy suburbs with the center. In the Sociologist's opinion this shows how, *"the movements of the higher income groups are determinant for the development of cities. They attract towards their location the investments in infrastructure."* Which is what happened from the 1970s on in Chacao: *"The people with higher salaries had moved Eastward before, to not mix with the poor and the companies moved after."*

Therefore, in 1991 when the residents of the parish of Chacao achieved independence and the municipality of Chacao was formed, much wealth was already concentrated within its modest boundaries. Commenting this origin of Chacao, an Architect at the *Oficina Local de Planeamiento Urbano* (OLPU, Local Office for Urban Planning in the Municipality of Chacao) says that, *"The division might seem somewhat unjust as Chacao was the area of Sucre with most of the valuable business and with little poverty."*

While this situation secured Chacao a good start, it is unlikely to have been beneficial to the rest of the city. In Liberator's Office for Strategic Urban Development it is commented that the creation of Chacao accentuated the uneven development in Caracas: *"When Chacao was a part of the district of Sucre there was not much distinction, regarding the incomes, logically, they were the district's. When they divided, the tenderloin was just there* [in Chacao]. In fact, after the partitioning almost half of the tax income of what used to be Sucre remained with Chacao with only one-tenth of the population (Gonzales 1998).

The municipal authorities of both Chacao and Libertador praise the fragmentation and decentralization process' intention of bringing the authorities closer to the people

through the creation of smaller administrative entities along with the delegation of more authority to the local level and Chacao is considered the prime success story of this kind of new local government.

Yet the case of Chacao also exemplifies how the principal instrument for decentralization, the Organic Law of Municipal Regime (LORM) of 1989, makes it not only possible but economically beneficial for richer areas to segregate – increasing the risk of having new administrative borders drawn according to socio-economic criteria. The LORM leaves the municipalities with greater autonomy with respect to income generation (article 10) and correspondingly also delegates more responsibilities to the municipal level. Significantly, article 36, makes the provision of even basic services and infrastructures a local, municipal responsibility. Article 38 further specifies that municipalities with more than 50,000 inhabitants will have the functional responsibility for public lighting, cemeteries, solid waste management, water and sewerage, slaughter house, public markets, primary health care, public park maintenance, libraries, urban planning, street signs, civil protection, daycare and pensions, family planning, fire-fighting and public sport facilities. It is clear that with the existence of significant territorial inequalities, *wealthy areas are likely to benefit from autonomy* because the wealth that is generated on a municipality's territory will benefit that municipality almost exclusively.

This means that the *administrative fragmentation in Caracas greatly reduces territorial cross-subsidizing*. Given the parallel decentralization of the public services to a municipal level, increasing differences in the territorially determined income bases of the municipalities are bound to contribute to an aggravation of the uneven developments observed within the DMC. For the parish of Chacao municipal status means that the significant tax-contribution that the relatively high density of offices on its territory represents can be spent according to the decisions of it own municipal administration.

Inequality within the DMC

Municipal revenues are very unevenly distributed within the DMC (see figure 1). The growth in Chacao is in stark contrast with the significant economic difficulties that Caracas as a whole is experiencing – on a prestigious ranking list published annually by the magazine AméricaEconomía, Caracas ended up as number 35 out of 40 Latin American cities ranked by economic attractiveness in 2004 (Calvo et al. 2004).

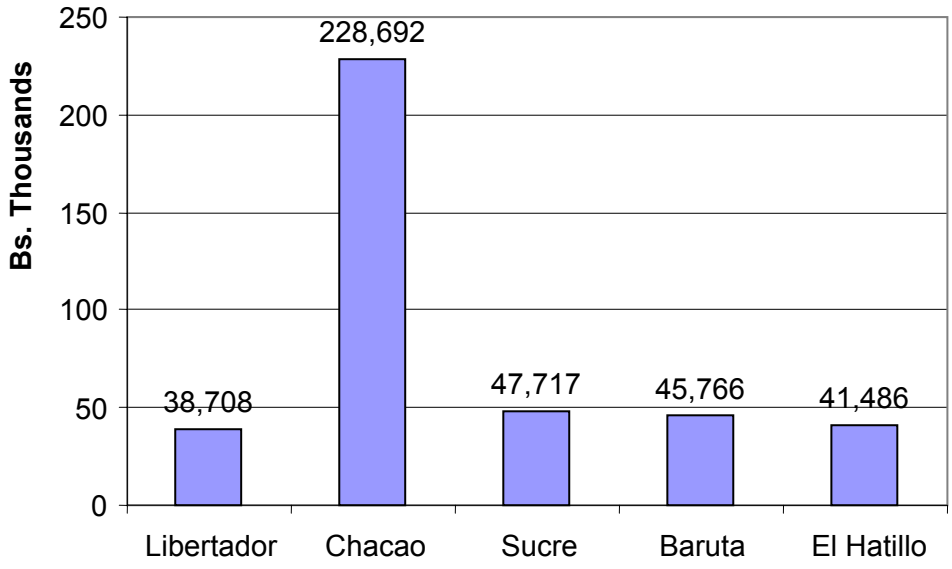


Figure 1. Per capita revenue in the municipalities of the DMC 1997. Source: Mitchell 1998.

The economic disparities between the municipalities of the DMC regarding municipal income are shown in Figure 1. The striking contrast between Chacao and the rest of the municipalities is especially problematic because there is much poverty in the city, and further polarization is likely. The deterioration currently observed in many parts of the city, and especially in Libertador, can be understood as a 'malevolent spiral' that parallels the positive development in Chacao in the sense that *most of the businesses that move to Chacao have a previous location in another part of the city, most often Libertador, and they bring their contribution to the municipal income with them*. An Architect at the OLPU even considers the deterioration of Libertador in itself to be a significant push-factor for companies that are considering reestablishing in Chacao (President of Chacón & Associates).

The income and employment the companies bring are important, and some of the municipalities are willing to go far to retain and/or attract them. A Sociologist with the real estate consultancy Penthouse comments that when *"Libertador is lowering the real-estate taxes to keep the investments there, while they should go up as the inflation is strong…* [this] *should be interpreted as an indication of how bad things are going there."* The President of Miguel Chacón & Associates says about the use of financial incentives that, *"Baruta is even more aggressive usually, than Chacao is; because Chacao has it easier as it's more consolidated.* […] *If you install your company there, they will negotiate a non-payment of*

taxes for I don't know how many years. A thousand and one incentives." These quotes might also indicate that the strengthened intra-urban competition has led to a sort of 'race to the bottom' policies at municipal level. There is no room for any comparison of municipal policies here, but intra-urban competition for private investments is definitely significant.

1.6 Metropolitan Administration

To bring the development within the DMC into harmony the 1999 constitution included provisions for the creation of a common administrative entity for all the 5 municipalities of the Metropolitan District of Caracas. It was argued that an administrative authority was needed that could coordinate the management of the DMC that since the early 1990s had involved 5 municipal governments, 2 regional governments and the various public and private enterprises taking care of the provision of services in the DMC.

According to a prominent Professor of Architecture at UCV, it was a fundamental problem for Caracas that it had,

> *"lost the one organ that could maintain a vision of the metropolis as whole. When the politics of decentralization was beginning to be put into practice* […] *one of the very first decisions was to eliminate the Metropolitan Office for Urban Planning (OMPU), and they didn't put anything in its place."*

The various municipal governments soon realized that some of the tasks that had become their responsibilities with the decentralization needed to be approached on a larger scale than that of their local jurisdictions, and throughout the 1990s there were various attempts at institutionalizing some kind of governing authority at a metropolitan level (Paiva 2002).

Finally, when a new national constitution was under way in 1999, the administrative challenges facing Caracas as a metropolis were discussed in the constitutional assembly and a law was passed with the intention of mending the negative consequences of the administrative fragmentation and decentralization. The resulting Special Law Concerning the Metropolitan District of Caracas (LEDMC) stipulated the creation of the *Alcaldía Metropolitana* (AM, Metropolitan Government) that should ensure a more coherent confrontation of common problems and a more efficient provision of services. Among the central goals of the new Metropolitan Government's Secretary for Urban Planning is the *harmonic* development of the city (AM 2001, Delfino 2001).

According to the Director of the Department for Urban Planning at the AM, much of the problematic development in Caracas in the 1990s had its roots in the administrative

fragmentation and decentralization process: *"The smaller municipal governments can exercise their public function closer to the citizen* [and] *there are more possibilities to discuss and influence the budgets,* [but] *it harms the coordination,"* and *"especially in terms of the provision of networked services. That's why the Metropolitan Government is necessary."* The Director of the Department of Urban Planning points out that part of the reason for the displacement of business from the historical center and Eastwards towards Chacao during the middle of 1990s is to be found in the insufficient coordination of security and transport that contributed to the deterioration of public space across the city:

> *"Because of this, Chacao gathers strength. Because Chacao has the main vial corridors, Libertador Avenue, the Boyacá express way; it has four metro stations within reach.* […] *It's flat. It has a number of geographic characteristics of accessibility, of investments in quality infrastructure." And, "the companies are looking for the safest zone, which is Chacao."* The result is that, *"Chacao grows on the cost of not only Libertador but of the deterioration of the whole city* […]*."*

The AM, then, is intended to provide some sort of super-municipal coordination to counter-arrest the uneven development of the DMC. To this respect the LEDMC attributes the AM with such tasks as urban planning, urban road infrastructure, police, public health and solid waste disposal. The LEDMC, article 22, also establishes that the AM is to be financed with 10% of the money the central government transfers to the states that are a part of the DMC, and with a significant 10% of the income of the municipalities that make up the DMC (Paiva 2002).

With these steps towards a redistribution of service responsibilities and revenue, the LEDMC could seem capable of neutralizing at least some of the polarizing effects the fragmentation and decentralization process has had on the DMC. Various critics have commented however that the creation of the AM has brought very little if any improvement to the administrative situation in Caracas. There are several reasons for this. According to the interviewed Professor of Architecture at the UCV, a big part of the problem is that the LEDMC *"doesn't clarify sufficiently the competences of the AM in relation to the municipal governments."* Indeed, all of the tasks the LEDMC attributed to the AM that were mentioned above, *coincide with tasks that are assigned to the different municipalities* according to the LORM (1989). This situation is confusing and makes it hard for the AM to retain its legitimacy which in turn makes it hard to make the municipalities pay their share of the AM's budget (Paiva 2002).

Another important reason for the AM's lack of success is the highly conflictive political situation in Caracas and Venezuela. At the time this research was undertaken the AM was led by a Mayor in opposition to the central government, and the Metropolitan Police forces under his control were allegedly involved in the short lived April 2002 *coop d'etat* against the sitting President of the Republic, Hugo Chávez.

This tense situation has consequences for the inter-municipal cooperation and for the financial situation of the AM which relies on contributions from the different states and municipalities of the DMC, with their different political affiliations. According to the Professor of Architecture at the UCV, *"the government isn't conceding the resources that they should to the municipalities of the opposition. The mayors loyal to the government and those that are with the opposition don't meet."* The Director of the department of Urban Planning confirms: *"Theoretically and legally, cooperation between the municipalities should be possible. There is the Consejo Metropolitano de Alcaldes* [Metropolitan Council of Mayors]*, where all the Mayors should meet, but they don't – because of the political situation."*

On the other hand, the municipalities that sympathize with the national government complain that the AM is not providing them with the services that it should. The Mayor of Libertador, Freddy Bernal, for example, argues that the 11 thousand officers of the Metropolitan Police fail their obligation to aid the *11 hundred* municipal police officers in Libertador with the very serious problems of crime in that municipality (*Últimas Noticias* 2004/6/22). The Professor of Architecture asserts that *"We have reached a situation where the new law has made the city not more but rather less governable than before."*

The AM has not lived up to expectations. In part because its competences are limited and ill-defined; but the politically tense situation in Caracas has also exposed the vulnerability of its financial base.

2. Theoretical perspectives

The literature on contemporary urban restructuring processes is extensive and in the following I will present only a selection of the contributions that I find most relevant for this study. Much of this literature suggests that similar processes of change are taking place in urban areas across the world, and reviewing some of what has already been written may also contribute to a better understanding of the changes in the urban structure of Caracas.

In what follows I will give a brief outline of the debates on the relationship between recent transformations in the world economy and the political economy of cities – what are the city level responses to such related issues as, the introduction of new information and communication technologies (ICTs); the increasing importance of transnational companies (TNCs) in national and urban economies; the calls for economic liberalization; and the increasing focus on local competitiveness? In my review of this diverse literature I will try to bring together the literature on entrepreneurial governance strategies with the literature on new ICTs, always with a focus on issues of uneven development and socio-territorial polarization.

2.1 The world economy transformed: Post-Fordism

Most scholars agree that the world economy has gone through a process of change since the 1970s so profound that it can be said to have resulted in a new economic system. This change has variously been labeled a shift from the Keynesian State to the Competitive State (Kim & Short 1999); a shift from Fordism to post- or after-Fordism (Gertler 2000); a shift from modernism to postmodernism; or the emergence of a new Kondratiev 'long wave' of economic development (Graham & Marvin 2001). Irrespective of the label that is used to denote it however there is a common understanding that the change involves a 'deregulation' of the economy and the introduction of more flexibility in the production process. Within the political economic perspective the regulation school talks of a shift from a Fordist to a post-Fordist 'regime of accumulation' where the term 'regime of accumulation' refers to the dominant form and organization of capitalist production. This regime change can be understood as a response to the economic downturn, or crisis, following the post war boom. From this perspective, the post-Fordist regime of accumulation is a reaction to the falling rates of profit. In order to improve the rates of profits the new regime of accumulation

introduces a more flexible relationship between labor and capital that leaves capital with greater control over the deployment of labor through such practices as subcontracting, greater vertical integration between firms, and a more flexible use of labor (Short 1996). The post-Fordist regime of accumulation is characterized by neoliberal political discourses that promote a *"belief in the social and economic efficiency of the 'free' market and competitiveness"* (Leitner & Sheppard 1998, 285).

This economic and political restructuring, together with advances within the information and communications technologies (ICTs), has intensified the competition between cities as sites of production. The increasing geographic mobility of firms that employ new forms of technology and flexible production means that city governments are faced with increasing economic uncertainty while at the same time they are met with the opportunities offered by business-friendly policies that promise to attract firms and investments. The rise of so called 'entrepreneurial policies' where local governments actively encourage economic development by promoting the involvement of private investors on their territory is therefore often associated with the importance of competitiveness under post-Fordism. According to Leitner and Sheppard (1998, 296) *"urban entrepreneurialism and inter urban competition are so closely associated with one another that frequently they are treated as synonymous."*

Hall & Hubbard (1998) argue that the broader shift in the capitalist economy, *i.e.* from a Fordist to a post-Fordist regime of accumulation, is inseparable from the tendency in urban governance towards entrepreneurialism. As they see it, most theorizations of such a tendency are rooted in a political economy approach where it is assumed that the aim of state intervention is to ensure the reproduction of the economy and society. A change in urban governance means a change in the way local tensions between capital and labor are resolved, and, as mentioned above, this relationship between capital and labor forms part of the very definition of 'regime of accumulation'. In this sense *urban entrepreneurialism can be said to be the urban governance strategy of post-Fordism*.

2.1.1 Entrepreneurial governance

Entrepreneurial strategies of urban governance are often contrasted with the so-called 'managerial' strategies of previous decades where the role of local government was primarily that of manager and provider of services. Entrepreneurial governance strategies on the other hand are often characterized by their focus on economic competitiveness and an

orientation towards growth, especially through the encouragement of private partnerships and investments (Harvey 1989, Hubbard & Hall 1998, Kim & Short 1999).

This focus on private and semi-private actors within entrepreneurial regimes is often described as a shift from urban 'government' to urban 'governance' (*i.e.* Hall & Hubbard 1998). The term 'governance' is then being used in a new way that distinguishes it from the term 'government' precisely to put an emphasis on the plurality of actors involved in the production of policy outcomes and the diminished role of the state in that production. Whereas 'governance' traditionally has been defined as 'the act of governing' and thus as synonymous to the term 'government', recent academic usage strips 'governance' of much of the hierarchical connotations associated with 'government' and defines it rather as the *coordination* of institutions, organizations and other actors in the production of policy outcome (Painter 2000).

Leitner and Sheppard (1998) suggest that among the broader trends that have encouraged the adoption of such strategies are the tendency for national states to spend less on welfare state activities; the emphasis on decentralizing powers and responsibilities from national to sub national levels of government; and the erosion of nation states' power to control and manage their own economies as a result of an increasing influence of supranational institutions, such as the World Trade Organization (WTO), the International Monetary Fund (IMF) or the World Bank. These trends have affected central-local government relations and made it *both possible and necessary for local government to look for new ways of dealing with economic uncertainty*. The increasing involvement of private actors in urban governance is therefore not only ideologically grounded (in neoliberal theory); it is also a response to a tightening of local state budgets. From the perspective of regime theory, public-private partnerships in urban areas arise out of necessity as a means to enable the regime to carry out its governing functions. Cooperation with the private sector allows public officials with limited resources at their disposal to *"produce the capacity to govern"* (Hall & Hubbard 1998, 10).

According to Harvey (1989) urban entrepreneurial governance strategies are employed by cities to lure production, financial and consumption flows into its space. Development, then, is driven by purely speculative investments instead of comprehensive planning. Such speculative investments may be successful, but they may also fail to deal with the *"serious social and economic problems* [that] *are taking geographic shape in the*

form of a dual city of inner city regeneration and a surrounding sea of increasing impoverishment" (Harvey 1989, 16).

Harvey argues further that urban entrepreneurialism and competition is likely to bring with it *a polarizing tendency of upward and downward spirals of urban growth because inter-urban competition for a limited amount of resources, capital and jobs amount to a zero-sum game that is bound to produce winners and losers*. If one locality successfully manages to lure investments into its space, there will also be another locality that fails to do the same, and this development may be self-reinforcing as a successful location is likely to become more attractive and maintain its success. He writes that this competition between localities has been intensified by new ICT infrastructures (1989, 11), and before I bring the consideration of these matters further I will look at this and other possible spatial implications of these new ICTs in the next section.

In the literature on entrepreneurial governance strategies, such strategies are almost always considered on an *inter*-urban scale, as in the example above where it is suggested that in the zero-sum game of attracting investments, entrepreneurial strategies produce inequalities *between* cities. Does this mean that such policies, when employed at a municipal level within a city are likely to produce *intra*-urban inequalities? What is the role of entrepreneurial governance strategies in the uneven development of the geography of Caracas?

2.1.2 Changing infrastructural scenarios

The world economy is a system made up of local, regional and national activities that are all tied together through a variety of infrastructures for transport and communication. Major infrastructural changes are therefore bound to affect that economic system, the relation between global and local processes, and their corresponding geographies.

There is no doubt that the introduction of new ICTs and the infrastructures that support them constitute such a major infrastructural change. Developments in the ICTs have brought new possibilities for the organization of the production process and the economy. Companies around the world make use of electronic networks in their day-to-day operations and the ICTs have become fundamental in the world economy – the companies that operate on a global scale require real-time communication and information access that would be unthinkable just a few of decades ago. Everything from the synchronization and control of vast production networks to international financial transactions depends on increasingly

advanced information infrastructure. In fact, many of the characteristics of the post-Fordist economy and society, like the intensity of competition and the more flexible production, are closely related to the possibilities for economic and social organization this new infrastructure has brought.

To understand the changing geographies of cities in the post-Fordist era it is therefore necessary to understand the geographic implications of these socio-technical changes. Infrastructure can be defined simply as the underlying, usually immobile, structure of services and amenities necessary for productive activity (Lee 2000). For a better understanding of what infrastructure is and does however the political-economy perspective provides an insightful account.

The political economy of infrastructure

Political-economy perspectives are founded on relational theory where time, space and place have no essential, fixed meaning. Instead, time, space and place are the outcomes of spatialised social relations. The relational links within and between cities are multiple and complex and geographic proximity is certainly no guarantee for meaningful relations or connections. Given the intricate configurations of modern infrastructure networks it would be naïve to think simply that geographically far-off places and persons do not relate while close-up ones do. Access to local and global networked infrastructures that mediate the relational links between and within cities are all-important for people's and capital's varying ability to overcome these constraints. While capitalism's goal of perfect mobility for labor, goods, capital, information, water and energy is strictly theoretical, infrastructural networks do possess a varying ability to increase mobility by compressing time-space barriers. From this perspective infrastructure becomes vital for the operation and participation in markets and access is therefore fundamental for the exercise of social power and for capital accumulation. Accordingly the economic actors' relative access to infrastructure both reflects and reproduces their socio-economic position in society (Graham 2001, Harvey 2001, Swyngedouw in Graham 2001).

The before mentioned centrality of new ICTs for the post-Fordist regime of accumulation makes this all-important role of infrastructure clearer than ever before. On a global scale the economic system is becoming increasingly geographically dispersed, but at the same time the geographically dispersed sites of production, consumption and exchange need to be integrated and coordinated to support the processes of production, consumption and social and spatial reproduction. The ICTs are central to post-Fordism also because, to

the degree they contribute to the compression of spatial barriers to trade and production, ICTs are likely to intensify the competition between places and reinforce the use of entrepreneurial policies.

Post-Fordist infrastructural scenarios

Graham and Marvin (2001) argue that the end of the modern era, what I have been calling the shift towards post-Fordism, has brought with it dramatic changes in the provision of networked infrastructures. They argue that since the end of the 19th. Century and up until the end of the 1960s, urban planning in the West was dominated by an ideal with particular implications for urban infrastructure provision. This modern ideal saw the city as a single objective entity bound together by the infrastructure networks necessary to sustain its population density. The modern urban planner pictured the city as a rationally planned, coherent space. Ideally, infrastructure should be supplied universally by the state to all citizens. The state's position as sole provider was legitimized by networked infrastructures' perceived status as a *natural monopolies* – because of the enormous sunk costs involved in the construction of such networks competition in this sector was not considered to be neither rational nor possible, and usually only the state would have the means and will to invest in such long-term projects. Later, the universal infrastructural access that the modern ideal promotes would be further legitimized by the way such access facilitates mass consumption, in the so-called Fordist era.

The modern ideal has not always matched reality however. Often, and especially in the South, the state has failed to provide the population with sufficient infrastructure and this has left many in doubt about whether the state should be trusted with this task after all and some have even questioned whether universal access should be a goal at all.

Undoubtedly the modern ideal of the rationally planned city has lost ground. The rise of entrepreneurial governance strategies, discussed above, is an indication of this, and in accordance with that discussion it is commonly suggested that the private provision of infrastructured services abiding only the laws of profit would at least mean an improvement from today's situation. Harvey (2001) counters that suggestion with the observation that it was exactly the excessive market-orientation of the 'rational' state-planning that caused its failure in the first place.

No matter what the causes of its failure have been, there can be no doubt that the modern ideal is facing some serious challenges as neoliberal discourses promoting trade

liberalization and competition through the 'free' market have become hegemonic in most parts of the world. For many countries that are managing with increasingly strained budgets, the sale of infrastructural assets represents a welcome albeit short-term income. This is especially notable in developing countries that often suffer severe debt-burdens and therefore are made subject to the policy recommendations of international financial institutions like the World Bank or the IMF. These institutions typically recommend policies of privatization and/or fiscal restraints which might further undermine the governments' possibilities of providing sufficient infrastructural services (Graham & Marvin, 2001).

The result of these challenges to the modern ideal has in many cases been an end to the state's status as monopoly provider of infrastructure. As mentioned, infrastructure was thought of as a 'natural' monopoly because of the perceived irrationality of competing in a sector involving such large sunk costs. The monopoly situation in turn suggested a 'bundled' infrastructure where the different services were provided as one standardized 'package' in a network geared to providing an entire geographic territory with broadly equal services at broadly equal costs. The perceived state failure in planning, the general shift towards a neoliberal climate promoting privatization and 'free' competition in all sectors, together with technological advances that make customized networks possible, has not only brought an end to many state monopolies, it has also led to an *unbundling* of the infrastructure networks. By 'unbundling' is meant *the technical and institutional segmentation of bundled infrastructure*. This is what happens, for instance, when a government or monopoly owner chooses to extend or limit *parts* of the network to certain areas, or hand over the responsibility for parts of what was once one network to private enterprises. For example the responsibility for the electrical network may be handed over to one actor while another will have the rights to the telephony-network – the electricity and the telephony would then be considered unbundled networked services. The result will be *a plurality of networks that may or may not overlap*. Unbundling of an infrastructural network lowers the entry costs for investors in the sector and makes it possible to invest in or buy only a part of what was long considered 'naturally' coherent entities. In other words it makes competition in the sector more likely, as it undermines the conception of these networks as natural monopolies. In this way unbundling is a means to facilitate the privatization and liberalization of networked services. Unbundling also makes infrastructural consumerism possible in the sense that a

consumer may pay only for the services he/she uses, or put differently – *use only the services he/she can pay for* (Graham & Marvin, 2001).

In the context of a post-Fordist economy where flexibility requirements are higher, unbundling plays an important role. Unbundled infrastructure networks make it possible for a company to subscribe to networked services according to its changing needs. While the Fordist production regimes associated with modernity saw provision of universal access to infrastructured services as the basis and goal for a society of mass-consumption, *today's post-Fordist, flexible production regimes requires customized and exclusive infrastructures*. In the South, foreign investors' demands on infrastructure are often much higher than the local standard, and *places that can offer exclusive infrastructure networks especially suited to the needs of foreign capital possess an important advantage in the competition for international investments.* The unbundling of networked services increase the likelihood of sectorial prosperity in a city that may otherwise be in decline as much economic activity is becoming more reliant on access to ICT-networks – to what Castells (Borja & Castells 1997) calls the 'space of flows' – than on the 'space of places', the physical surroundings in the geographic proximity.

Later I will consider, in what sense Caracas can be said to be affected by these new infrastructural scenarios through a closer look at the ICT networks in the city. What role do they have for the evolving geography of Caracas? In what sense has an unbundling of the infrastructural networks been taking place and what is the relationship between such unbundling and the evolving geography of Caracas? In what follows I will review some theoretical approaches to the relationship between technological developments and urban form in the context of a changing society.

2.2 Socio-technical changes and consequences for urban geographies

There seems to be a growing concern within the literature on issues of urban geography both with new forms of urban governance and with the rapid advances in the ICTs. While most urban theorists seem to agree that both these matters merit attention, there is much discrepancy on the respective importance that are attributed to them, and technological determinist views have a tendency to overlook the political-economic aspects of the dynamics of urban geographies.

The literature on ICTs and urban form may be roughly divided into two theoretical traditions – the deconcentration school, and the restructuring school. Within the first, new ICTs are considered the last in a historical series of innovations in transportation and communications that work rather unidirectionally to free society from place and distance constraints. Within the second, spatial restructuring is seen as a result of a mutual relation between ICTs and the political economy (*i.e.* the accumulation and distribution of wealth) of cities (Audirac 2002).

While the decentralization school may be accused of a sort of technological determinism, it presents some strong views on the topic of the relationships between ICTs and urban form that are relevant for this thesis, and in the following section I will look at what insights that school has to offer before these are contrasted to some of the contributions from the restructuring school. This latter school's concern with the interaction between ICTs and the political economy in the restructuring of urban space allows it to show both how ICTs have facilitated the rise of entrepreneurial regimes as well as how those entrepreneurial regimes shape the outcome of that restructuring (Audirac 2002).

2.2.1 The decentralization school

The deconcentration school understands ICTs to more or less dissolve the importance of proximity for economic activity. These theories are clearly rooted in neoclassical economics and the locational preferences of firms and people (consumers) are to a large degree considered an issue of rational choice and cost-efficiency. The new possibilities for communication offered by ICTs are believed to have clear implications for the firms' decisions regarding location. Simply stated it is suggested that *a (re)location to less central areas is likely because of lower m² costs*. This decentralizing effect of ICT then, is related to the way the concept of accessibility has been altered as new ICT-infrastructures provide a kind of 'virtual' accessibility that along with traditional notions of physical accessibility (distance and mobility) make up what has been called 'hybrid' space. Some authors have gone as far as to suggest that the introduction of new ICTs will bring about the 'death of distance' – that location will be irrelevant for companies because the cost of electronic communication is not determined by distance. This argument has also led to a parallel prediction of the 'end of cities' heralding the definite end of agglomeration economies: *the computerized workplace can be located anywhere* (Sassen 1994, Cairncross 1997).

Other more moderate authors within the deconcentration school acknowledge that, especially when privately provided, these new infrastructures are likely to be biased towards certain regions and areas in the largest cities where the high-end users are located. These authors are worried that within so called hybrid space, access disparity may result from a 'digital divide' that discriminates between users depending on both geographic location and buying power (Audirac 2002).

While there seems to be some recognition also within the deconcentration school that ICTs do not simply neutralize distance, this tradition does tend to see the relationship between new technology and urban form as one of cause and effect in what amounts to a sort of technological determinism where the location choices of presumably rational economic actors are predicted or explained simply on the basis of land prices and new possibilities provided by technological advances (Graham & Marvin 2001).

2.2.2 The restructuring school

Representatives of the restructuring school have a far more complex understanding of the interaction between ICTs and society. The diverse writings within this school draw on such traditions as world systems theory, the post-Fordist formulations from the French regulation school, and the literature on world city formation and the network society.

Common to these contributions is the view that the current ICT-based socio-technical paradigm is integral to those fundamental changes in the organization of the world economy that were mentioned at the beginning of this chapter. Take for example the increasingly important role of transnational companies (TNCs) and global finance capital in the accumulation and distribution of wealth on all scales. While this is a trend that has been made possible by technological innovations, it also both influences and responds *to* "social *innovations (organizational and institutional) inscribed in the productive and political practices of cities and regions*" (Audirac 2002, 218). Entrepreneurial regimes are important examples of such *social innovations*. City governments increasingly take the global economy into account in policy formulations at the same time as the nature of that global economy relies on the urban policies of cities around the world. ICTs are seen an integral part of that economy. Restructuring scholars,

> *"conceptualize IT effects as fundamentally inscribed in a new capitalist spatial organization of production, with both global and local dimensions, intricately linked to the flows of physical materials, information, and people. Understanding IT effects on urban form requires understanding these flows and the fixity or flexibility of ground, air, water, and digital infrastructures"* (Feldman in Audirac 2002, 219).

This emphasis on how the spatial organization of the urban economy is related to the relative fixity of built infrastructures reminds us that distance is not dead at all and it brings us back to Harvey's discussion of the role of infrastructure in the social, or political-economic, production of spaces. But before turning to that, I will look at what another branch of literature has to say about the socio-technical innovations and urban form, namely the world cities literature.

World cities: Saskia Sassen

Within the restructuring school, the literature on world cities understands the interrelated social and technological innovations of post-Fordism to have distinct effects on the geographies of cities. Saskia Sassen has been central in the world-city literature, and in what follows I will review some of the changes in urban form she attributes to the socio-technical transformation of society – the increasing importance of ICTs *and* entrepreneurial strategies.

In a summary of the world-city literature, Friedmann (1995) asserts that urban areas and agglomerations are likely to maintain their importance in the world economy despite widespread predictions to the contrary (*i.e.* the deconcentration school). Spatial concentration in cities, in the form of agglomeration or *re*-agglomeration economies, continues to serve a variety of purposes for corporate management requiring spaces of representation, interaction and innovation.

In accordance with this, Sassen (1994, 1995) writes that the notion of a 'global' economy where ICTs have neutralized distance provides a highly inadequate basis for an understanding of globalization and cities because it overlooks the spatial dimension of economic globalization that shows how cities are becoming an increasingly important arena for transnational economic activity.

In the transformation of the economy since the 1970s Sassen emphasizes a decisive shift towards the service sector and especially towards what she calls *producer services*. Examples of such producer services are: financial, legal, and general management matters; innovation; development; design; administration; personnel; production technology;

maintenance; transport; communications; whole-sale distribution; advertising; cleaning services for firms; security; and storage. Sassen argues that *"these services can be seen as part of the supply capacity of an economy because they facilitate adjustments to changing economic circumstances"* (Sassen 1994, 55). The production process in these service industries requires highly specialized inputs from other service industries, and this creates a basis for agglomeration economies. In fact, when the high-level professional is said to require face-to-face interaction, this interaction is likely to be part of the production process in the producer services. Because these producer services are usually available only in urban environments, she argues that the role of the city as an economic entity is becoming more, rather than less important (Sassen 1995).

Also, while certain manufacturing activities may be dispersing regionally and globally, this dispersion is organized around a parallel *centralization* of management and control operations. The 2001 UNCHS report on cities observes that, *"It is precisely because of the territorial dispersal facilitated by telecommunication advances that agglomeration of centralizing activities has expanded immensely."* The management and control operations are an important part of the production process of the global 'information economy' and they continue to be place bound in several ways. *The vast physical infrastructures required for such production are centered around strategic nodes* where facilities for electronic communication are concentrated, and the professionals who depend on access to such facilities are required to locate their offices in proximity to these nodes. This is one reason why the office buildings of the information economy are to be found in major cities (Sassen 1995, UNCHS 2001).

Another development are the so called 'edge cities' that have been developing around metropolitan areas contributing to a more polycentric urban geography that represents representing a new tendency towards a *re*concentration of economic activity at the urban periphery. Such edge cities are digitally networked to traditional central business districts (CBDs) and although they are not substituting the traditional center, they do serve as location for activities that previously would be found in the CBD and they might strengthen the intra-urban competition for investments (Sassen 1994).

Sassen quotes a number of studies indicating that the new service dominated economy produces a larger share of low-wage jobs. The production processes also involve the work of secretaries and cleaning personnel, but we often forget the role of this 'traditional' sector of producer services, perhaps because the profits are vastly superior in the new growth sectors of the specialized services like finance and administration. Also, for labor, the more flexible forms of production associated with post-Fordism have meant more uncertain working conditions with more use of part-time and temporary work, both in the manufacture and service sector. The result is a tendency toward increased economic polarization accompanied by an uneven geography where the low wage service workers reside in (digitally) deprived neighborhoods and commute to work. This tendency is likely to be stronger in major cities because they concentrate the major growth sectors that are characterized by such significant income disparities, and also because massive concentrations of people create a market for small, low cost, and perhaps informal service operations (Sassen 1994, 1995).

Harvey and the political economy of infrastructural change

Harvey's more theoretical approach to this issue does arrive at some similar conclusions. Harvey asserts that capitalism's goal of complete spatial mobility, which indeed would amount to a 'death of distance', is of course unattainable. Both the spatial structures that form the basis of production and consumption – cities, industrial areas, *etc.* – as well as *the infrastructure and transport networks required to produce mobility are fixed and embedded in produced space*. Infrastructure networks are examples of locally dependent capital, representing large, immobile, sunk costs. As sunk costs, these investments are committed to a particular use in a particular place and they are not recoverable in case of exit. This dependency on the local place of investment makes infrastructure investments risky because their inflexibility imposes an immobility on capital that makes restructuring problematic. Harvey sees this as *a tension between capitalism's unavoidable fixity and its inherent need for mobility and circulation*. For example, an urban (infrastructural) landscape that has been shaped in relation to a certain phase of development can later become a barrier to further accumulation. This tension will eventually have to be resolved through a crisis situation where infrastructure is left dead (as a sunk cost) to give way to the new configurations of space-time mobilities required to maintain profitable production. In Harvey's view then, this constant infrastructural redevelopment is integral to the capitalist city and a driving force behind major changes in the urban structure where new terrains of winners and losers are created as new actors and areas will be provided with access or non-access in a process that

is bound to produce geographic unevenness. Because infrastructural change is always socially and economically biased, time and space barriers will always be collapsed in an uneven fashion that reveals the interconnectedness of spatiality, power and infrastructure. The production of infrastructure networks should be understood as an exercise infused with struggles between groups, firms and institutions possessing uneven social, economic and cultural power. A person's or a group's ability to exercise social and economic power derives from the degree in which they are able to mediate their lives through infrastructure and extend their influence over space. Therefore the production of infrastructure networks will reproduce power relations and reflect the highly uneven political-economic situation, with a reinforcement of existing capitalist social relations as a result (Casey 1998 in Graham & Marvin 2001, Harvey 1985 in Graham & Marvin 2001, Swyngedouw 1993 in Graham & Marvin 2001, Gertler 2000).

As mentioned, political economic theory understands space as socially constructed. Within and through the city the uneven use and connection to networked infrastructures can be understood to reflect this construction. In the following I will take a closer look at the possible implications for the construction of space of what Graham and Marvin (2001) understand as the *new social innovations in urban governance and infrastructural provision under post-Fordism*.

Post-Fordism and splintering geographies

Graham & Marvin (2001) claim that the unbundling of infrastructural networks that they associate with post-Fordism is likely to lead to a fragmentation of the infrastructural and social fabric of the city. They have labeled this development 'splintering urbanism'. In developing countries where the existing infrastructure is almost always inadequate such splintering might have particularly stark consequences. The increased possibility for and acceptance of differentiation between users of infrastructure networks according to the logic of the 'free' market is likely to contribute to further marginalization of less 'valuable' users and areas. The processes of unbundling allow for more diverse, or uneven, urban infrastructural landscapes, while the ideal of a 'rationally' planned and coherent city is undermined. Because connectedness is increasingly important for the participation in the economy, the increasingly uneven availability of infrastructure is expected to contribute to the future reproduction of social and spatial inequalities (UNCHS 2001).

These splintering processes can be slow as the immense values already sunk into cities' infrastructure are bound to create certain inertia. Also there are many cases of privatization where the urban authorities strive to keep the integrity of the existing infrastructure networks intact through franchising deals and continued regulation of the whole city. Nonetheless, the increasing pressure for liberalization and privatization allows new private infrastructural competitors to begin assailing the more or less coherent, if limited, urban networks left over from the era of modern planning. Networks of ICT infrastructure are no exception, and the networks that support the latest technology is often marketed in a liberalized and deregulated environment right from its introduction. The imperative is almost everywhere to privatize and liberalize infrastructure to support the profitability of an increasingly international capital (Graham & Marvin 2001).

The resulting social and infrastructural geographies of splintering cities are characterized by an increasing complexity. Multiple, overlapping networks may connect isolated islands of spaces across the city with other cities around the world, while other spaces within the same city remain virtually unconnected both globally and locally. These new geographies derive from how *unbundling makes it possible to 'bypass' users*, in three important ways: 'Local bypassing' consists in the construction of new infrastructure that connects valued users and excludes non-valued users within a city. Global-local, or 'glocal', bypassing consists in connecting valued local users with global networks while, again, other non-valued localities within the city are excluded. Lastly, with the aid of advancing information technology, it is increasingly possible to supply competitive services on a single physically integrated, network. Such so-called 'virtual network bypassing' makes it possible to differentiate between users' access to services on the already existing network. This practice is very common already; take for instance the way Internet providers offer a selection of (differently priced) band-widths for connections through one and the same line (Graham & Marvin 2001).

Graham and Marvin's (2001) focus on the relative distancing of non-valued spaces and users, reflects a relational perspective on space and time. This perspective shows how infrastructure networks that no longer correspond to the city as a coherent territory are part of a reconstruction of socio-spatial relations. Increasingly, links between infrastructure and territory are characterized by unevenness on all spatial scales. Castells (2000) point out that infrastructural bypassing in the form of improved and often *invisible interconnections between valued spaces often have a visible counterpart in the form gates, walls and*

surveillance cameras that create a paradoxical reinforcement of local boundaries to movement and interaction within the city.

The above reflections on how geographies can be splintered through uneven connections to infrastructural networks are important for an understanding how new spaces develop in the city. The most valued spaces are likely to be well connected to networks that effectively bypass less prosperous nearby spaces, and this is especially likely to occur in cities in the South where the economic contrasts are starker. In fact connectedness, to transport networks for example, can be decisive for the location of valued spaces. For high-value residential areas or office buildings connectedness to transportation and information networks can offer the double advantage of bypassing lower-status areas (*i.e.* slums) in the physical proximity while assuring a relative proximity to the down-town business district. This illustrates the point that networks may partially neutralize distance, but never in a socially neutral way. Space-time compression through infrastructure may work to integrate the socially and economically powerful while simultaneously excluding the poor, both relatively and absolutely.

While unbundling makes bypassing easier than ever before, entrepreneurial strategies of city governance give private interests and investors more to say in the development of infrastructure. This parallel development provides developers of infrastructure with both the means (bypassing) and the goal (profit) to create new space-time compressions that exclusively serve to tie valued spaces closer to other valued spaces.

Unbundling provides the affluent with important new possibilities of connection in a process that also involves new forms of exclusion. How are these new possibilities of exclusive networking used in the construction of Chacao as a valued space within Caracas? To the degree that infrastructural connectedness plays an important role in economic life, an uneven infrastructure can be expected to reinforce the marginalization of those that are left unconnected. Intense social polarization is characteristic for most countries and cities in the South including Venezuela, and the entrepreneurial policies that are sought by many cities around the world are thought to reinforce the uneven development as the parallel technological advances make it possible to differentiate between users on basis of what and how much they consume.

2.3 Concluding remarks

The profound changes in the urban governance and infrastructural scenarios of cities in the post-Fordist era play an important role in the literature on contemporary urban geographies. *ICTs are part of a thorough-going socio-technical transformation of society, where urban form more than ever is determined by global and local business decisions "nurtured by the entrepreneurial state"* (Audirac 2002, 223). The precise relationship between new ICTs and urban form is not given – both centralizing and decentralizing tendencies are at work. However a post-Fordist economy where both the distribution of capital and the provision of infrastructure to an increasing degree are regulated according to free-market ideals rather than ideals of social equity is likely to produce more complex urban geographies characterized by increasingly uneven and fragmented socio-spatial structures. Later I will examine how the theoretical perspectives and concepts that have been reviewed in this chapter relate to the dynamics of the urban geography of Caracas.

3. Method

3.1 Qualitative research

I have chosen a qualitative approach for this research project. In contrast to quantitative research, qualitative research is based on non-quantitative observations that are analyzed in non-statistical ways. Where quantitative research often can be said to regard social science as analogous to natural science, and to regard its object of study as something stable, existing independently of the analyst, qualitative research locates the social scientist within the social world acknowledging that ´reality' is to some degree *constructed* and not simply uncovered. The researcher is often personally involved in the collection of the data and the researcher's understanding of relevancy is central to the interpretation of that data. Although the data always will allow various interpretations, some interpretations will be more compelling for theoretical reasons or on grounds of internal consistency (Dooley 1990, Halvorsen 1993, Punch 1998, Smith 2000).

In qualitative approaches *multiple* strategies and methods are often employed, and the range of what can count as data and how to collect them is wider. Because the qualitative approach is more exploratory and open-ended, the structure of the design and the data will often be developed only as the empirical work proceeds (Punch 1998).

A qualitative approach allows the researcher to get an in-depth understanding of one or a few units, but any generalizations arising from qualitative studies will never be of a statistical nature. The researcher's aim is rather to gain a thorough understanding of the object under study: its logic, its arrangements and its explicit and implicit rules. This aspect of qualitative research implies that such research never can be experimental – it needs to be undertaken in the natural setting of the people or events under study (Punch 1998).

Qualitative research can bring about a better understanding of a real event and it is often pointed out that it may serve an important function preparing the grounds for quantitative research which is often perceived as more 'useful' because it allows the researcher to make statistical generalizations from sample to population. It is true that an exploratory qualitative study can aid other researchers find new relevant research questions or variables for their studies – for example, a qualitative investigation of an ´old' topic may help renew perspectives within too ´conservative' fields of research – but as it is argued in

the next section, the qualitative case study may also give us information that is valuable *per se*, or even generalizable in a non statistical sense.

3.2 The case study

In qualitative case study research there are just one or a few units of investigation, for example *one* social system, *one* company. Often, what the researcher considers *typical* cases are selected, not as samples for statistical generalization, but for analytic purposes. Using whatever methods appropriate, one case will be studied in detail with the general objective of developing as full an understanding as possible of that case. The insights such research brings can be valuable because the particular case is so important or because it is a so called negative case that does not conform with expectations, but often the aim is also to gain a better understanding of other similar cases, and that rises the issue of generalizability (Punch 1998).

According to Punch (1998) a case study may produce results that in some sense are generalizable, or *transferable*, in two ways: The first is by conceptualizing – methods for analysis that focus on conceptualizing rather than mere description allow the researcher to develop new concepts to describe some aspect of the case; The second is by developing propositions (hypotheses) that link concepts within the case. C*oncepts and propositions are generalizable or transferable in the sense that they can be useful for understanding other situations*, and for research on other cases.

Generally the case study can be understood as an empirical inquiry that uses multiple sources of evidence in an investigation of a contemporary phenomenon within its real-life context. It is more a strategy than a method: a way of organizing social data so as to preserve the unitary character of the social object or process being studied (Halvorsen 1993, Punch 1998).

3.3 The data material

The data material for the present case study was collected ‘on site’ in Caracas, in the course of 2 months of field work between June and August in 2004. The principal aim of the fieldwork was to gather information about the nature and relative importance of factors that are decisive the location of company headquarters in Caracas, with the purpose of

uncovering the reasons for the relative success the municipality of Chacao has had within the DMC when it comes to attracting investments. I collected these data through observation, documents and statistics, and most importantly, through interviews with representatives of companies and authorities in Caracas.

Observations

I stayed in Caracas for a period of 2 months and this allowed me to gain a much better understanding of the geography and organization of the city. I got to know first-hand some of the challenges that the inhabitants face in terms of transport and personal safety and this experience was an essential foundation for the formulation of relevant interview questions and for the understanding of the answers given by the interviewees. Talking to people, and participating at public events and conferences related to the local urban reality contributed greatly to my understanding of what the important issues were from a local perspective.

Documents

I found many public documents, statistics, and research and news paper articles on topics related to mine. I was often able to buy or make photocopies of the material I thought interesting. At other times I made use of a digital camera to digitalize and reproduce documents. Many public documents, such as official statistics and municipal plans often proved either hard to find, hard to get a copy of, or simply non-existent. When such documents were available they were not always updated, for example it is a problem that official statistics do not include good data on the significant unregulated territories of the city.

Qualitative interviews

The informed interview is suitable for gathering information on phenomena that the researcher does not have the opportunity to observe on his own. Such interviews may be undertaken with persons with first hand knowledge of the phenomena under study serving as a sort of substitute observers (Halvorsen 1993).

I conducted a total of 22 interviews with: Representatives of companies that were situated in Chacao; Representatives of the planning authorities on both municipal and metropolitan levels; Representatives of the main companies that supply the various

municipalities of the DMC with fiber optic telecommunications infrastructure; And also with a selection of local experts (see appendix).

The interviews with the representatives of the companies were conducted on the basis of series of questions or topics that I formulated before-hand, giving the interviews a semi-structured form. The same is true for the interviews with the local governments. Their semi-structuredness made them easier to compare afterwards, but especially during the first interviews it was important to follow the structure only loosely and for the questions to be open in order to allow for unexpected perspectives and answers. Later, as I had a better understanding of the situation, it was possible to improve the structure of the interviews and formulate more adequate questions.

With the local experts I was interested in *their* perspective on the urban developments under study so I opened for a more open-ended discussion of the topic while with the suppliers of infrastructure the interviews were aimed more at obtaining concrete information and were thus characterized by the inclusion of more closed questions in the discussions.

All the interviews were recorded on minidisk, except with Statoil where the subject did not wish to have the interview recorded and I took notes instead. I also took notes during the recorded interviews whenever I felt it could aid me with the transcription process.

In accordance with the subjects' preference the interviews were undertaken at the subjects' offices, and always with a prior appointment. I believe this provided an optimal setting for the interviews as I got to meet the subjects in a location and situation he/she was familiar and at ease with, and there were few interruptions. Undertaking the interviews at the subjects' offices also gave me an opportunity to familiarize myself with the area under study, and observe the companies and their location. Having agreed on appointments beforehand, the interviewees were generously conceding enough time for the interviews once we managed to meet and start talking. The interviewees were generally very helpful and no-one seemed to perceive the questions as controversial, in fact many said they found the topic interesting and seemed to enjoy talking about their city and their municipality. Only in on one case did I meet a little resistance and made to feel that time was running short (Banco Federal). My overall impression was that people liked to talk with me as a foreigner. I believe being a foreigner in some ways was an advantage in the interview situation because as an outsider to the political conflict I was considered politically neutral

in the highly polarized political atmosphere in Venezuela, a status that I think gave me more freedom regarding the political 'correctness' of my questions.

Transcription

I transcribed the interviews as soon as possible after their realization while I still had them fresh in my memory. While still remembering the interview situation, and with the assistance of the notes taken during the interviews, I could make a better interpretation of the interviews in the transcription process. Because of the often 'factual' nature of the subject matter, I did not consider it was necessary to transcribe the interviews in their entirety, word-by-word, and I omitted hesitations and errors. All the interviews were conducted in Spanish with the exception of the interview with the representative of Statoil, which was conducted in Norwegian. I translated the interviews and quotes into English myself. Translating the interviews was not difficult, in part because I made an effort during the interviews to have the interviewees explain ambiguities and things I did not understand.

Challenges

The principal challenge in the collection of the data was to contact with the interviewees. Assuming that a person of a higher position in a company would be likely to have more knowledge on the advantages (and disadvantages) of the localization of the company, I chose to primarily contact with company directors or high ranking personnel. The persons holding such positions were not always easy to get through to and when they or their secretaries *could* be reached, they were not always willing to concede time for an interview. In this situation, where I as a researcher need access to informed subject within a closed environment, I found it convenient to employ what has been called a 'snowball' method for selection where one informant would recommend me to talk to other informants. Establishing contact became easier as I had developed a kind of network of people that could put me in contact with people they knew in other companies (Halvorsen 1997).

Nevertheless it was a recurring problem that the interview subjects simply did not keep their appointments or postponed them repeatedly. Also when interviewees had agreed to send me more information or documentation later, this was often forgotten and it was necessary to spend a significant amount of time on repeated prompting.

Reliability

The reliability of a measure is its consistency. Bayley (1987) defines a measure as reliable if repeated measurements would produce a different result if and only if the concept being measured has changed. For example, a research interview in scientific investigation will not be reliable if the interviewed does not understand the questions as they were intended.

I believe the semi-structured open-ended form of the interviews undertaken in this research project made it easier to detect misinterpretations of the research questions. There were good possibilities for clearing up misunderstandings because the interviewed were allowed to elaborate quite freely in his answers, and because of the interaction that the dialogue-like interviews allowed.

There is always a risk that the interviewed somehow will feel pressured to say what he/she believes the interviewer wants to hear, or to answer on an insufficient basis because he/she feels uncomfortable with admitting not to know the answer to a question. To avoid this it is important that the atmosphere is comfortable and relaxed so the interviewee can feel at ease. As mentioned my status as foreigner my have taken some of the ´political edge' off my questions because of my supposed ignorance, and in conducting the interviews I felt that it was possible to maintain a rather friendly and unpretentious atmosphere. On the other hand, given the political situation and my status as foreigner, the interviewed were sometimes untruthful or biased in their answers perhaps because they wanted to give a certain impression of that situation. As I became more familiar with the topics of the local political landscape however I felt it was increasingly easy however to identify political stereotypes, and to avoid ending up with politicized answers by asking additional questions when necessary.

Validity

For a measurement to be valid its essential that the concept actually measured is identical with the intended one and that it is measured accurately. For example, in this study it was my intention to collect data on the factors that influence in companies decisions about where to localize. I chose to collect those data through interviews with local representatives of companies assuming that these have first-hand information, or at least knowledge about the relevance of such factors. Of course I have no good way of knowing to what degree the interviews with these local representatives gave me data on the actual decisions on where to localize, or whether the data merely reflects the personal observations of the interviewed.

Especially with the transnational companies the decision about the company's location may have been taken by headquarters in the companies' countries of origin and not by the local personnel. However in selecting subjects for the interviews I tried to contact with as high ranking personnel as possible, hoping they had the relevant knowledge, and all the interviewed did prove to have firm opinions on the subject matter.

4. Analysis: Agglomeration and polarization in Caracas – the case of Chacao

Since the end of the 1980s the Venezuelan economy has gone through changes associated with a shift towards post-Fordism with policies of economic liberalization and an extensive privatization of many state enterprises including the telecommunications company CANTV. Also, much of the governing authority of the DMC was decentralized to municipal level. In the beginning of the 1990s three new municipalities were created bringing the total number of municipalities in the DMC up from two to five. The resulting deregulated and decentralized nature of the DMC has reinforced intra-city competition for private investments. The initiative of private capital becomes increasingly central to the production of wealth locally within the DMC.

The decentralization of governing authority and the liberalization of the economy and the telecommunications services have not been accompanied by any simple decentralization of economic wealth and power. Although the historical center in the municipality of Libertador seems to be losing its role as the unquestioned location of the city's CBD, the major economic actors are not simply spreading out across the city. In spite of the increased locational flexibility supposedly offered by new ICTs there has not been any notable move towards less central lower cost areas as the decentralization school would predict, instead a tendency towards an even tighter re-agglomeration of business in the municipality of Chacao can be observed.

The municipalities of the DMC face very different realities in terms of population density, employment and income, and although some municipalities have been able to meet the increased competition for private investments with a more or less successful employment of entrepreneurial strategies, competition between places is, as pointed out by Harvey in the previous chapter, bound to produce losers as well as winners. In Caracas the economic growth of the municipality of Chacao since its creation in 1991 clearly places it among the winners.

In the following, various possible causes of this tendency towards agglomeration or *re*-agglomeration of economic activity will be considered. Section 4.1 will bring a consideration of the role of fiber optic ICT networks in the agglomeration process observed in Caracas. As pointed out in chapter 2, ICT infrastructure has been given much attention in

recent discussions of urban form and change, and here I will explore the concrete situation regarding the extension and relevance of such infrastructure in Caracas, on the basis of interviews undertaken with the main providers of fiber optic connections in the city. Later, in section 4.2, I will continue this exploration through a series of interviews with representatives of a selection of companies that have decided to locate in Chacao to see in what ways these consider ICTs a relevant factor in their location strategies. I will then expand that discussion to include other possible factors that cause the companies to agglomerate in Chacao. Lastly, in section 4.3, I will consider the changes in the administrative situation of Caracas and Chacao's special position within the DMC since its origin as a municipality in the context of the decentralization process of the late 1980s and early 1990s.

4.1 Agglomeration and ICTs

The advanced infrastructure for ICTs in the form of fiber optic networks is relatively new to Caracas. They have been developed since the 1990s, when the providers of telecommunication services had already been privatized and in a period the telecommunications was being liberalized. Complete liberalization was reached in 2000. In chapter 2 I exposed some of Graham and Marvin's (2001) predictions regarding the related processes of unbundling and liberalization of service-provision, where these were thought likely to contribute to a further fragmentation of the urban infrastructural landscapes as they challenge the ideal of universal provision. Graham and Marvin (2001) point out that unbundling and liberalization bring new possibilities for user differentiation that make it easier and more lucrative to service the high-end users exclusively. This they argue might result in a form of digital segregation with super-connected enclaves within an urban landscape.

All provision of networked services in Caracas is currently privatized and liberalized. When it comes to the development of fiber optic networks the central or local government has had no involvement in their elaboration. According to a high ranking Engineer at *TelCel*, a major provider of corporate fiber optic network connections in Venezuela, the development of such networks were begun only after the national telecommunications company CANTV was privatized and sold to an American company in 1993. CANTV had a monopoly in the telecommunications market except for in mobile telephony, until the market was completely liberalized in 2000. But the fiber optic networks have not only been subject

to liberalization, they have been *de facto* un-regulated in the whole period because, as the OLPU admits, "*the municipality has not been able to control this activity."* And the state organ regulating the communications infrastructure, CONATEL, has not supervised the construction of such networks either. The companies that provide these services simply cut the streets open and put their own cables. A major provider of fiber optics in Caracas, NetUno, says that with the lack of regulation and legislation, *"*[…] *it's a chaos down there. No on one knows what's where when you cut the street open."*

This means that these networks have not been shaped according to any urbanistic plan but rather according to the needs and possibilities supplied by the market – *connection to fiber optic infrastructure is delivered as a typically unbundled service and universal access is definitely not on the agenda*.

In what follows, I will explore the geography of the advanced ICT-infrastructure in the form of fiber optic networks in Caracas that has resulted from this situation. I will investigate whether the distribution of the networks is more or less uniform throughout the city or whether it is restricted to certain areas and users in digitally privileged enclaves. Then, on the basis of interviews with all the major providers of fiber optical networks in Caracas, I will consider the relationship between digital connectivity and the agglomeration process – if the ICT infrastructure is better developed in the areas where business prefers to locate, is this because the infrastructure contributes to agglomeration or is it the agglomeration itself that attracts investments in infrastructure?

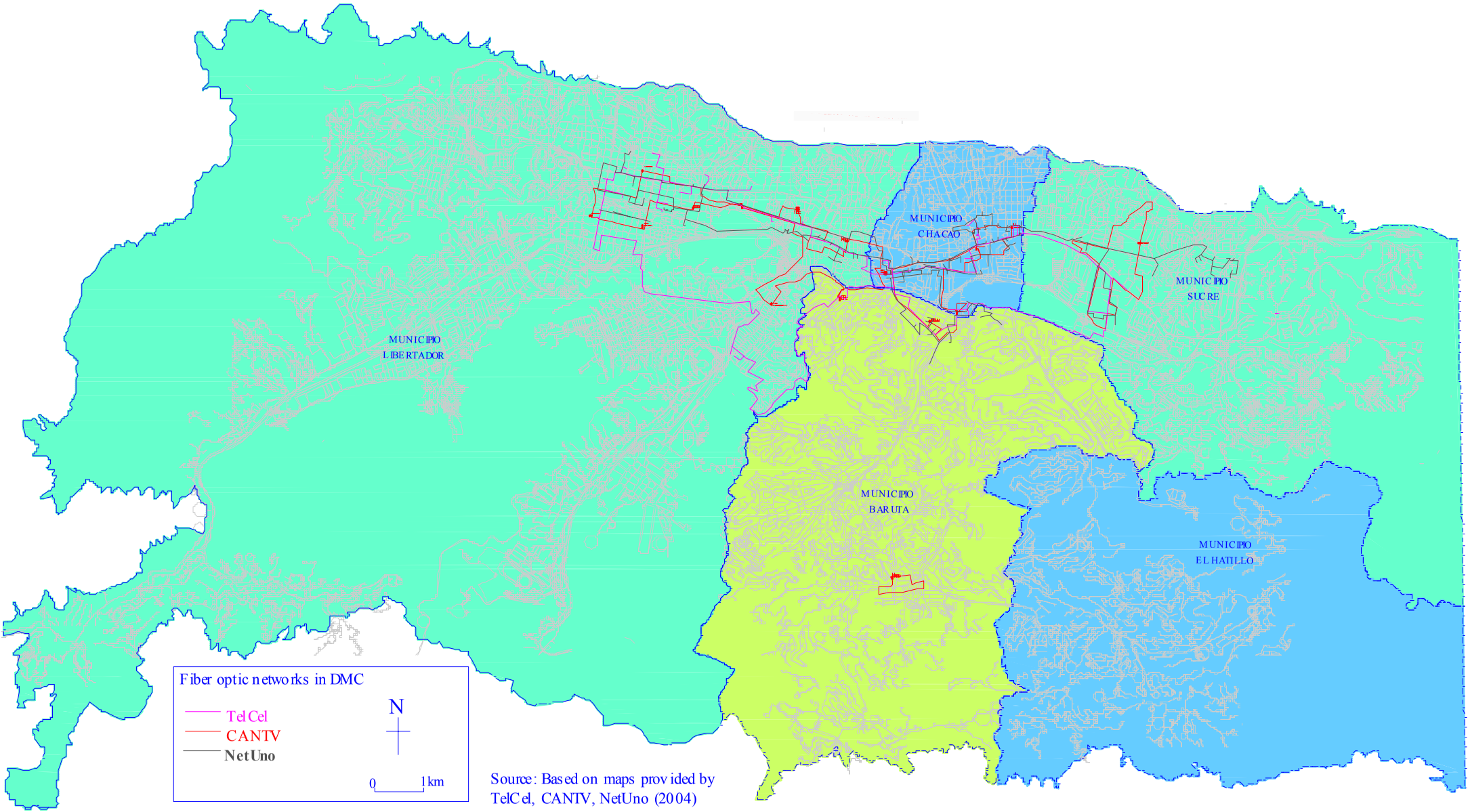
4.1.1 The digital geography of Caracas

The following map shows the extension of the corporate fiber optic networks in Caracas that have been built by the three most important providers of this kind of infrastructure in Venezuela. It was not possible to obtain a similar map from the last of the important providers, namely AES (*Electricidad Caracas*). The General Manager of AES would not reveal the exact information on the location of the company's clients, but he did explain that their clients were *all among the largest TNCs and that they were all located within the central areas of Caracas*. He considered the information obtained from the three other companies representative for the totality of corporate clients connected to fiber optics in Caracas (see map 5, p49).

Map 5 (facing page) shows the totality of optic fibers installed in the DMC by the three major providers TelCel, CANTV, and NetUno. There is a high density of fibers in the historical center (traditional CBD) of Libertador; the area can be recognized on the map by the regular shape of the street blocks. There are also cables connecting the campus area of the Central University to the South-East of the historical center. In the central areas of Chacao (emerging CBD) there is a particularly high density, and to the South of Chacao, in the commercial area of Baruta there are also cables. There are cables also towards the industrial areas of Sucre to the East, and in what appears to be a closed circuit within the campus of the Simón Bolívar University to the South, in Baruta. Apart from these limited and well defined areas there is practically no place where a company could be located and have access to this kind of infrastructure.

The areas with the most extensive optical infrastructure are obviously the central areas of Libertador, and Chacao. The absolute extension of fiber optics in these areas is comparable, indicating that a greater part of the CBD of Chacao is covered as it is less extensive than that of Libertador. Importantly, Chacao also has a comparably high number of its office buildings connected. An Engineer with NetUno comments on the map that, *"*[…] *these are the buildings connected by us in Libertador. They are few. If you look at Chacao, the large majority of the important buildings in Chacao are connected."*

Along the same lines a high-ranking Engineer at TelCel, comments on the map that, *"Here, in the Historical center, the public government is represented, the Central Park. But if one wants this service there, there is not as much as in this area* [Chacao]. *In fact the majority of our installations are located here in Chacao."* In fact, he says, *"It's possible that the area that has more optic fiber, that uses it more, all use it, but where the resources are concentrated, is precisely in Chacao.* […] *Over here* [Chacao] *you have all the big corporations. The big corporations that require these services are located in this sector* [Chacao]*."*


MUNICIPIO
CHACAO
MUNICIPIO
SUCRE
MUNICIPIO
LIBERTADOR
MUNICIPIO
BARUTA
MUNICIPIO
EL HATILLO
Fiber optic networks in DMC
TelCel
CANTV
NetUno
N
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1km
Source: Based on maps provided by
TelCel, CANTV, NetUno (2004)

4.1.2 Agglomeration and connectivity

In the previous section it is shown that the fiber optic networks in Caracas have a very limited extension, and that the access to such infrastructure is much better in the central areas of Libertador and Chacao than in other parts of the city. The connection between these two areas that are also the locations of the two major business agglomerations in Caracas is also particularly strong. Sassen's (chapter 2) description of how 'edge-cities' may develop as competing centers of investment around metropolitan areas, *but always intensely networked to the traditional CBD*, springs to mind. Chacao is of course in no sense any edge-city, but as an emerging alternative CBD, it is certainly intensely connected to the traditional CBD (see map 5). This might suggest that the ICT infrastructure and the communication it provides with the traditional center is a necessary condition for the reagglomeration process, but it might as well be the other way round, *i.e.* that the fiber is provided for the two areas *because of the density of business there*.

The Project Administrator at NetUno says fiber optics are becoming a must for corporations in Caracas, that, *"Paradoxically, given the economic down in our country the last years, we have had a significant growth in corporate clients the last two years."* He says that the clients are *"*[…] *in general large companies, and banks. There is not a significant difference between multinationals and nationals. The large multinationals might require a somewhat larger bandwidth and backups."* The interviewed Engineer at TelCel says the clients are often banks, but TelCel also has clients within manufacture, *"*[…] *when they have the head office in Caracas and the factories outside Caracas. This is the case with many firms, because Caracas is the economic center of the country."*

The General Director of AES that owns Electricidad Caracas, on the other hand, says *the price-level of their fiber optic services is so high that it effectively excludes most national companies from connecting through their network, limiting the clientele to the large foreign-owned TNCs.*

The Engineer at TelCel explains that extending the fiber optic network can be quite costly because the street has to broken up along where the cables are to be put. As a consequence, when TelCel decide on where to put their cables they need to *"consider how connecting can be rentable. If they pay us 1 million dollars and the investment is 500 thousand… this will depend also on the existence of other firms, potential clients in the area."* This means that TelCel considers it safer to extend their network into areas where

there are many firms that might require connection, *i.e.* large corporations, banks and headquarters.

NetUno also says that before expanding the network,

> *"we study the market. We analyze whether on the way to that company there are other buildings that might need a connection in the future. If there are, then we'll absorb a part of the costs of the construction. The rest will be installation costs* [for the client]*. If they are on top of the network you might not charge for the installation at all."*

In other words it will be cheaper for companies to have fiber optics installed if they are located closer to an existing network, and according to NetUno this is a factor that the companies increasingly have to take into account when they are considering a location: *"In the beginning it was rather we who looked for them. This may work the other way also, now that the network is established."*

The Engineer from TelCel also says that areas with a previous existence of a fiber-optic network are more attractive for business because when it is not necessary to break open the street to arrive with the cables it will be cheaper to get a connection there. That is why, he says, *"This Avenue* [Francisco de Miranda, Chacao] *is very attractive – because there are many important clients there. So CANTV, TelCel, NetUno and Electricidad Caracas all pass by here* [with fiber optic cables]*."* He explains that,

> *"Toyota for example – this client requires the services of two operators. One is us.* […] *So then we calculate the costs of getting to that place with fiber optics, and because my network doesn't reach that building as of now, it's necessary to extend the network. We need to make a new canalization to reach that building. Some of that cost is going to be paid by the client. If the building was a little bit more to the North it would be much more expensive."*

Another indication that the existence of a fiber optic network makes the land more attractive is the way it affects the land-prices positively. The President of the real-estate consultancy Miguel Chacón & Associates explains that,

> *"The presence of fiber optics, and technology in general, increases the demand for the land.* […] *And with a scarcity of land* […]*, the prices increase. And one observes that within the same street* [in Caracas]*, between a building that has technology and a building that doesn't, there's a price difference of almost 30%."*

NetUno also believes the existence of fiber optics adds significant value to the area. Their Project Manager says this is because the companies that are locating in Caracas look for the existence of these cables: *"*[…] *They will have connection as a condition,"* he says, and

explains that the companies will call the suppliers before moving and ask whether there are possibilities of connection:

> *"There are TNCs that have moved from one place to another, and for them to move to new offices, they will call us and say: we're thinking of moving from this tower to that tower, can you connect us there? -Yes? Ahh, Ok."*

In sum, these findings suggest that the previous existence of a fiber optic network does represent a factor that guides investments while at the same time the providers of network-services are profit-driven and choose to develop the infrastructure according to where the high-end users are located because of the demand that they represent. The observation that in liberalized telecommunications regimes *"the private sector builds where the high volume and the money is"* (Habitat 2001, 9) is an accurate description of the situation. In Caracas these high-end users, mostly large corporations, are located in the CBD in the historical center of Libertador and also in the 'competing' CBD of Chacao and consequently the advanced ICT-infrastructure in Caracas is to a significant degree geographically limited to these areas. As connection to fiber optic networks has become a common requirement for corporations that are looking for office locations, the limited extension of the networks has in itself become a factor that might contribute to further agglomeration.

The findings directly contradict the predictions of the decentralization school which postulates that the introduction of new ICT-networks 'neutralizes distance' with a simple dispersal of business activity as a result. On the other hand they are very much in accordance with Graham and Marvin's (2001) relational perspective on the impact of new infrastructures on the urban geography. Graham and Marvin's approach allows us to grasp how ICTs indeed do shrink time/space relations, but not in an even fashion. In Caracas the selective development of fiber optic networks seems to reinforce existing business locations including the relatively new agglomeration in Chacao.

4.2 Agglomeration in Chacao: investors' perspectives

In order to explain the process of economic agglomeration that is occurring in Chacao it is necessary to understand what the factors are that influence the location strategies of the companies that move there. In my attempt to uncover the reasons for the re-agglomeration of important economic actors within the territory of Chacao therefore, my approach has been to talk with representatives from a selection of firms located in Chacao about what advantages

a location in Chacao has to offer them. The subjective perspectives of the different companies on this issue may shed light on what the actual considerations are that decide which locations end up as losers and winners in the competition for investments.

4.2.1 Digital accessibility / Telecommunications infrastructure

The digital accessibility of an area is defined by the availability of infrastructure for information and communication technology (ICT) in the area. The concept of digital accessibility is complementary to that of physical accessibility and its importance in the day-to-day operation of the modern enterprise is increasingly important in a globalizing economy that relies on exchange of information in real-time. The development of advanced ICT, such as fiber optics, is costly and the extension of such networks is therefore likely to be limited. In this section I will explore to what degree the interviewed companies value digital accessibility in their location strategies and how they perceive Chacao in this respect.

ICTs are important. All the interviewed companies say they are reliant on a good connection to the Internet and almost all are connected through state of the art fiber optic connections or plan on upgrading. There were some indications that the foreign-owned TNCs have somewhat higher requirements regarding high-speed connections; the Director of Kodak Venezuela for example, explains that ICT has made it possible to centralize the structure of the transnational company internationally with the result that *"there are a lot of things that aren't being done in Venezuela anymore."* In a recent restructuring of Kodak more functions have been assigned to the central headquarters in the US and real-time international connections have become more important than ever.

Likewise, the Vice-President of Statoil Venezuela explains that it is *"Crucial to be able to communicate with the oil rig. The operations are directed both from here, but more often from Norway. Good, secure connections are necessary."*

The Account Manager at SUN Microsystems, also a transnational company, explains that the different branches of the company are integrated by a fiber-optic network that allows them to communicate in real-time globally: *"If you pick up a phone here and mark an extension they can pick it up in San Francisco, or in Madrid."*

The construction company A.S.S.A, which is one of the few interviewed companies of purely national capital, is not connected to any fiber optic network. However the Corporate Accounts Manager at IBM, a transnational company that also provides ICT

services, says that: *"It doesn't matter whether they (the companies) are national or multinational. The telecommunications networks are more important for the companies in the service sector – we have many national clients that invest in telecommunications."*

Whether or not the demand for ICT is higher among the TNCs, it is clear that the interviewed companies share the perception that advanced telecommunications networks are readily available within the municipality of Chacao which thus fulfills an important criteria as a business location. The Vice President of Organizational and Human Management at Digitel-Tim says, *"there is no doubt that we need to be in a place where there are very concrete possibilities of connections of the highest technology and fiber optics is a part of this. We couldn't be equally efficient in a location where this wasn't available. It would be slower, different."*

Kodak Venezuela, which has just moved from Libertador, is also very satisfied with the digital accessibility in Chacao. The Director says that, *"In Chacao there's more connectivity. And almost all the telephone centrals here are digital, over there* [Libertador] *they have still got the old ones* [analog] *– still the third world."* And not only does *"*[…] *the telephone central in Chacao* [have] *sufficient capacity,"* but, *"the building was already prepared when we came here and had everything, also fiber optics. It had the last mile of all the services," while, "in Libertador we had to have an antenna to get the last mile."*
With 'the last mile' it is referred to the stretch of cable that connects the office to the nearest communications central. Without the previous existence of a ICT networks, 'the last mile' will often be the most costly part of installing for example fiber optic cables because in order to put the cables in the ground in an urban environment it will usually be necessary to break open a trench in the road. Even for a sizeable company like Kodak the costs made that alternative *"unthinkable"* even though an antenna provides a slower and much less secure connection. In the same way, explains the Accounts Manager at SUN Microsystems, "[…] *The problem with satellite is that you lose connection when it rains."* As a result, he says, "*all the larger and multinational companies in Chacao have got fiber optics now."*

The Corporate Accounts Manager at IBM believes the high density of companies with such requirements in Chacao brings further advantages in terms of high speed connectivity, because it makes it more lucrative for the providers of ICT infrastructure to invest in the area:

> *"Without doubt to be in a place like this is an advantage because there are many places through which you can get connected. This is a trafficated area. Upon concentrating that many companies that need access to Internet and private connections, obviously they* [the providers] *have allocated their infrastructure aiming at areas like this one. Which means that you'll have a way of getting connected quickly and without much investment on the part of the company that supplies. There are areas where these companies would not have the same capacity."*

He goes on to explain that for telecommunications companies in the service sector, like IBM, the fact that they have all localized in Chacao has not been "[…] *a premeditated plan on the part of the industry as such."* He prefers to explain the agglomeration within the sector as a cumulative process – "G*etting connected in Chacao is inexpensive and fast because of the previous existence of a network" he says. What happens is that "one company sees where its best to localize and then the rest localize there also.*"

This perspective on the relationship between changes in the infrastructural landscape and the agglomeration of investments is supported by the President of the real-estate agency Chacón & Associates who explained (chapter 4.1) that the m² price goes up significantly when fiber optics are installed.

From the interviews it seems evident that the companies value digital accessibility highly in their location strategies. Because the expansion of ICT infrastructure, in the form of fiber optic networks is costly, it can be an advantage to locate in an area where such infrastructure is already developed. While this could be a significant factor in the on-going agglomeration process witnessed in Chacao, it was evident from the interviews with the providers of this infrastructure that there is also a tendency going in the other direction, *i.e.* that a concentration of such infrastructure within Chacao results from the investments strategies of the providers of the ICT-infrastructure that are likely to aim at areas where a large number high-end users are located. It is possible that these two processes co-exist. In any case such processes would contribute to a spiraling development where density (of business / infrastructure) brings density (of infrastructure / business). In Chapter 2 Graham and Marvin (2001) suggested that a growing fragmentation of the infrastructural landscape could result from unbundling processes and privatization. The findings from Caracas seem to coincide with that argument as it shows how the logic of the 'free' market could be contributing to a highly uneven geographic development with the creation of super-connected 'islands' within the city. One the one hand, ICT-infrastructure is likely to be supplied primarily to certain privileged areas of the city, on the other; the increase in land prices associated with the

development of such infrastructure will make it unavailable to smaller enterprises with further economic and infrastructural polarization between privileged and non-privileged areas as a result.

4.2.2 Safety

The importance of safety as a factor in the location strategies of the firms that were interviewed is unquestionable. From the interviews, personal safety seems to be a major factor with a clear geographic aspect to it where *the territory of Chacao is considered relatively safe*. All the interviewed firms pointed out the importance of a safe environment for their employees and clients, and that they perceived their location to be safer than alternative locations in other municipalities.

To understand this intense focus on safety it is important to keep in mind that Caracas is considered a very unsafe city. Crime rates are high with everything from petty theft to armed assaults and murder occurring daily. This contributes to a climate of fear where people avoid going to public places, and especially places they are not familiar with. Going out after dark is not advisable in most areas except by car or taxi. A murder ratio of 113 per 100 000 inhabitants per year places Caracas among the most violent cities in Latin America (Calvo 2004). Within the DMC however the municipality of Chacao usually obtains a favorable position in the statistics on violent crime. For instance only 11, or 0.5% of the 2,154 registered homicides committed in 2002 were committed in Chacao which means that relative to the numbers of inhabitants in the municipality the murder ratio in Chacao is only a ¼ of the average in the DMC.

The municipal authorities of Chacao make use of such numbers to actively and credibly portray their area of jurisdiction as a *"safe territory."* The above number is taken from statistics that are presented at the official Chacao web site with the title *"Chacao: the safest municipality of the Metropolitan Area."* This kind of municipal image-making is not only maintained through the Internet but also with the use of large road-side posters, like the before-mentioned posters that greet all passers-by and visitors arriving by car with the text *"You are now in safe territory"* (see photo 4, chapter 1).

While it is not clear to what degree the perceived safety of Chacao is real or imagined, statistics do seem to support the image of Chacao as a somewhat safer territory, and in the

end it is the way companies perceive the state of things that matter when investments are to be located.

Clearly, many companies seem to share the La Tabacalera Nacional's Director of Corporate Affairs' opinion that, "*The security factor is perhaps* [Chacao's] *most important attraction."* And that *"It is of high importance for the location of the company that the area is safe."* The General Director of Kodak Venezuela agrees saying that, *"The safety was fundamental* [for the localization in Chacao]*."* Kodak moved its national headquarter from a location in Libertador to their current location in Chacao just one week before the interview took place and the director is very enthusiastic about the contrasts between the municipalities, "*The contrast* [to Libertador] *is enormous. I breathe out when I cross the border," she says.*

Upon crossing the otherwise invisible border between the area of Libertador where Kodak used to be located, Sabana Grande, and Chacao, it is striking how the hectic activity on the street comes to a sudden stop. In Libertador the *chavista* Mayor has decided to tolerate informal commerce because of the high unemployment rates that would otherwise leave a lot of people without any legal source of income. In Chacao on the other hand, strictly enforced regulations prohibits any kind of informal commerce. In this situation many blame the chaotic situation in the traditional center on both *chavista* policies as well as on the street-vendors that are often associated with crime and disorder. A prominent Professor of Architecture at the Central University of Venezuela (UCV), for example, says about the street vendors that, *"Without doubt the delinquent moves with a lot of freedom in that environment."*

This negative view of the activity of the street vendors is shared by the director of Kodak who says that the, *"Fear of the street-vendors, violence and robbery,"* was a major problem for them in Libertador. She says that, *"While we were in Sabana Grande all the employees were assaulted or robbed at some point… The mobile or something like that."* Chacao has rather 'successfully' solved this problem then, by removing from public areas the people that are considered likely to commit crime, *i.e.* poor people. This solution has probably been politically feasible because the poor are not an important part of the electorate in Chacao, like they certainly are in Libertador; but just as important is the limited extension of Chacao that has also got the necessary resources to maintain a substantial police force. As the market and communications Director of LaFarge points out, *"The municipality is very small and therefore it is controllable, in comparison with Libertador which is a monster."*

In accordance with this, the manager of a Chacao department of Banco Federal thinks Chacao is kept safer through more extensive surveillance and a higher density of police officers:

> *"Surveillance! That's what makes the inhabitant of Chacao a little more secure. We have a police in Chacao that's specialized, professional. With enough personnel and vehicles to be present at all times, throughout the day, throughout the municipality, so as to avoid crime from happening."*

For the companies, a safer environment provides them with more freedom of movement. It improves their access to services in the area, and it also improves the accessibility of their location, in the sense that clients and business partners feel they have less to fear. Kodak says that *"[*we] *used to be trapped in our tower before. People didn't go out because they were afraid"* and that, *"The clients like this location better, they are not afraid of coming here, the access is easier."*

The safety issue is related to accessibility also in regard to the availability of safe parking facilities. For the non-poor personal mobility in Caracas has become practically synonymous with the use of private cars and a lack of safe parking facilities would be a very serious draw back for any business location. As the Vice President of Statoil Venezuela points out, *"All the buildings around here have parking facilities underneath. It would be impossible if you could not park safely."*

Some of the TNCs have special safety concerns regarding personnel that are visiting from abroad. Statoil, Kodak and DigiTel-Tim all mention the availability of high-standard hotels in the safe proximity of their own compounds as an important factor in terms of safety. While Chacao can offer such accommodation, Kodak complains that "*In Libertador there is just* one *hotel that has an adequate standard."* Statoil also stresses the availability of residential areas nearby as an important safety attraction and points out that a problem with kidnappings in Caracas puts their foreign staff at particular risk.

As mentioned, the increased freedom of movement that safety brings allows the companies to access and use the services-facilities in their area. The Director of Corporate Accounts at IBM Venezuela describes how it allows "[…] *the employees to have a break in the work routine without it becoming a security problem."* he illustrates this point with the experience of Venezuela's largest bank, Banesco, which just established new headquarters in the neighboring municipality of Baruta:

> *"Ciudad Banesco that they just constructed in Bello Monte is a client of ours. It is in Baruta. This is Chacao. Baruta is a pretty good municipality in terms of safety, but even so they have encountered problems. They have an open office solution there that means there is a higher noise level inside the building and some times the employees want to go out although they have a cantina inside and it's not a safe area... because it's closer to the quebrada* [a riverside slum area]*."*

The President of the real estate consultancy Miguel Chacón & Associates, shares that opinion but says that,

> *"*[…] *the size of Banesco and the employment that Banesco will generate, directly and indirectly, moreover the impact of Banesco in the surrounding areas, qualifies it as an urban renovation project. They have only been open for three months. Within a year the Banesco-impact will make that area clean and nice. From all points of view. The real-estate around it will experience a price increase that will make a better conservation possible."*

By this logic, the investments in the area will in itself contribute to making the area more attractive for investments, which means *investments may have a sort of 'positive spiral effect' for a location where investments bring investments*. The Corporate Accounts Director at IBM Venezuela explains that the concentration of businesses in there area makes the area more secure because it, "[…] *brings the municipal government to supply it with more surveillance and with more people* [police] *and that makes it more difficult for the bad guys to act."* This understanding shows how political will to protect and foster localities that are receiving investments can be an important part of such a spiral.

Another interesting perspective on the issue of safety is put forward by DigiTel-Tim, and IBM. These two companies are located in the southern end of Chacao in the administrative zone (*urbanización*) called CCCT. This zone consists of a shopping-mall complex with offices, restaurant and hotels, the IBM building and a separate office complex where DigiTel-Tim is located. The whole zone is entirely surrounded by multi-lane highways making the accessibility extremely difficult for pedestrians. The public transport is limited to a bus service from Altamira in Chacao that takes passengers to a bus-stop on the far side of the highway. On foot, the only way to enter the mall is through the car-entrance of the parking lot after first crossing the highway.

As DigiTel-Tim sees it,

> *"this particular zone is less tempting for the criminals because it's a strictly corporative zone. There is little to here by night so there'll be fewer opportunities here for the criminals. The other thing is that this area is not in the axis of the metro* [it's surrounded by highways] *and so the criminal, in order to get here, has to come by other means of transport. There is not any slum close by either, and so for someone to commit a crime here it requires much more planning than in an area within reach of the metro where they can run and hide in a train, or where they have more possibilities of mobility."*

The Corporate Accounts Director at IBM confirms that *"This is an area you have to have a car to get to"* and also considers the area's "*fluidity of transit*" [the surrounding traffic], a major security advantage.

It is an interesting observation that the road infrastructure which provides excellent access to those who own a car, or can afford to use the CCCT-mall's own *safe* taxi-service, at the same time effectively works to filter away unwanted, poorer, segments of the population that are considered more likely to perpetrate crime.

As some of the above example indicate, the poor are considered a threat and it is likely that the extreme social inequality in Caracas contributes to the lack of safety that the city experiences. In Chacao this threat is contained an environments that in different ways are segregated from the surrounding city and the poor. The director of the construction firm Fertec is explicit in his view that, *"The displacement from Libertador began 12- 15 years ago because of social factors – safety and separation from the poor."*

Such safer environments are also secured directly in Chacao's many private corporate and shopping areas with the use of closed circuit television and private, often armed, guards. Kodak's new location is in such an area, the *Centro Lido*-mall (photo 6), and the director says it is *"nice to have the services inside the Centro Lido."* In Chacao there are seven such malls many of which offer facilities like hotels, swimming pools, tennis courts, office spaces, restaurants, cinemas and shops, all within areas that are privately protected and with parking places inside. Some of the malls even have exits directly to the highway, allowing people to drive there directly from their own property, without having to set foot in a public area (see photo 6).

Photo 6. VIP-entrance directly from the Highway to Latin America's biggest shopping mall, SAMBIL. El Avila in the background.

In the section on the so-called splintering geographies of post-Fordism in Chapter 2, Graham and Marvin (2001) argue that the increased flexibility the unbundled and decentralized provision of infrastructure gives, combined with the increasing power of private interests and investors in the development of infrastructure, provides developers with both the means (bypassing) and the goal (profit) to create new space-time compressions that exclusively serve to tie valued spaces closer to other valued spaces. In accordance with this, in my examination of how Chacao is able to offer a safer environment for investors, examples were given of how 'local bypassing' is used in such a way as to provide better mobility and exclusive access to certain spaces for presumably higher-income car-owners. In the *urbanización* CCCT, where IBM and DigiTel-Tim are located, the highways that surround the area and that provide excellent access for car-owners, also contributes to the safety of the territory by making it unattractive to the poor masses. In the same way, the private malls are easily accessible with car, while pedestrians need to pass scrutinous and armed guards at the entrance. Also, the architecture of Chacao provides abundant parking places exclusively for the users of the office buildings.

In the section on the political economy of infrastructure in Chapter 2 Harvey provides a useful perspective on how inherent tensions between the immobility of sunk capital and capital's dynamic needs can fuel major changes in the urban geography. In many

ways much of the infrastructure located in the traditional CBD of Caracas, in Libertador, can be said to represent large sunk costs that have now become a barrier for further accumulation. Libertador is deteriorating as Chacao develops and it can be helpful to understand this major change in terms of an infrastructural redevelopment of the city where the goal is to maintain production profitable. To the degree that the infrastructure available in Libertador does not satisfy the needs of today's investors, there is a risk for that infrastructure to be considered a sunk cost that will be 'left dead' because it is more economic to construct anew at another location. From my examination of the importance of safety when companies locate their investments, it was clear that the infrastructure required for parking cars safely is considered insufficient in Libertador. A lack of safe parking places seriously affects the accessibility by car to such a degree that safe parking places are considered a necessary condition for a functional business location. According to Fertec, *"new buildings in Chacao are always built with underground parking places."*

Harvey suggests (chapter 2) that speculative planning strategies associated with urban entrepreneurialism and competition are likely to produce upward and downward spirals of urban growth. Caracas might be witnessing such a spiraling development, because it is probable that, as the Account Manager of Sun Microsystems suggests, it's Chacao's position as a relatively rich municipality that makes it *"possible to improve the avenues, the health-care and the safety situation."* So assuming that the municipality receives a significant part of its income from the companies that invest there, and that safety is a significant factor for localizing investments there, the municipality of Chacao should become ever more capable of improving the relative safety of its territory, and with it, its attractiveness. And the result might be further polarization of the urban territory because if one locality successfully manages to lure investments into its space, there will also be another locality that failed to do the same.

These findings on the importance of safety does seem to support Sassen's assessment that proximity to what she calls producer-services continues to be relevant for companies' location strategies, but it is given a slightly different angle. Several of the interviewees describe a situation where they depend on having services nearby, but primarily out of safety concerns. Services, like banks, hotels and restaurants need to be within what can be called a "safe proximity"; otherwise they are hardly accessible at all. I will look more closely at the relevance of proximity to other firms and services in a later section.

4.2.3 Clean and well kept environment

The importance of a clean and well kept environment as a factor for the localization of companies is perhaps less obvious than the importance of for example safety. It was pointed out by several of the interviewed companies however that they appreciate the relatively cleaner appearance of Chacao. It is important to stress that many and large areas of Caracas are in a very bad sanitary state. The waste disposal in many of the hilly slum areas is very irregular when it exists at all. During heavy rainfall this can create problems also outside the slum areas as garbage is washed down the streets and onto roads and highways, occasionally blocking them for traffic. Most of the slum areas are in Libertador and the garbage problem affects Libertador much more than it does Chacao. Also the central areas of Libertador are filled with temporary informal sales-booths during day time and this is bound to generate a significant amount of garbage. When compared to the neighboring municipalities then, and especially to Libertador, Chacao's appearance is almost strikingly clean. It adds to Chacao's clean and orderly appearance that it does not host any street-vendors so often associated with the somewhat chaotic and unsafe situation in Caracas' other central areas. The director of Kodak, for example, seems to rate the cleanliness almost as high as safety when she says that *"the safety and the cleanliness is what's most important to us."* And that, *"the cleanliness of the municipality is much better than in* [Libertador]. *You don't see street-vendors and garbage in the streets."*

Kodak is not the only company that understands urbanistic order and cleanliness to be related and significant factors. Another of Chacao's large TNCs, Statoil Venezuela, says that, *"that it is clean and orderly is an important attraction of Chacao."* Accordingly, DigiTel-Tim explains that,

> *"*[…] *the most important reasons* [for the displacement of companies Eastwards] *have to do with the deterioration of the western part of town. The 'climate' is deteriorating, although there are good buildings there. This is connected to the politics of the* [chavista] *government in the municipality of Libertador. The politics of that government implies that they will be more permissive in letting the urban aspect deteriorate. They'll let the sidewalks be blocked* [i.e. by street-vendors]*..."*

While, in Chacao on the other hand *"the environment is pleasant, it's relatively clean. There's not as much pollution. Not as much urbanistic disorder."*

The General Director of TelCel also points out that Chacao offers urbanistic order. That it is clean, and that that there's recycling. He says that, *"you definitely breathe a different air when you're in a municipality like this, and that's something people look for."*

The Market and Communications Director of LaFarge explains that, before, the central government understood the importance of such a clean and ordered atmosphere much better, that,

> *"Under Caldera* [President Chavez' predecessor] *there were two very good programs for Caracas. They were called 'Caracas I love you' and 'A token of love for my city'. They consisted in a state-private cooperation in the beautification, the ornamental part, of the slums and of the public areas respectively. In 'Caracas, I love you', they painted the barrios and in 'A token of love for my city' the First Lady led an effort to brush up different areas. It was business and government working together. The First lady would find a place that needed brushing up and then look for companies that would sponsor it."*

You can still find some monuments adorned with company logos scattered around Caracas, and many of the slum-areas in the hills along the highway still have a colorful, almost picturesque appearance from afar – but now these programs have both been cancelled. The General Director of TelCel thinks they have been taken up by the local government in Chacao however. He says that, *"basically the government of Chacao wants to transmit something of cleanliness and order to these private companies."* For example, *"Every time there is demonstration, there is always a lot of graffiti* et cetera *and in Chacao, the day after, TelCel and various other companies take care to help clean and paint."*

Apart from such occasional efforts, the municipality surely depends on the capacity of its own public services that rely on funding through the municipal budget. Having the sufficient funds and by making a priority out of keeping its territory clean and well kept the authorities in Chacao seems to have managed to create an environment that is attractive for investors and contributed positively to the municipality's image as different.

4.2.4 Prestige

The municipality of Chacao is a 'modern' area for big-business and up-scale residences. Its many high-rise buildings and fenced-in villas provide a strong contrast to most of its neighboring areas and the wealth these assets represent are likely to contribute to its social status, making it prestigious to be located within its borders.

The two construction companies that were interviewed corroborate this assumption. The Project Administrator of Constructora A.S.S.A says they, "[…] *have many projects in Chacao. Because the middle class looks for an area that's a little more fresh. In El Rosal and Chacao there is everything. And they* [*i.e.* the clients] *know."* In other words the

potential real estate-customer perceives Chacao as an area that is 'fresher'. Fertec also says that, *"This area is more exclusive. They try to make it a mini-Wall Street"* and that, *"especially the last 6 years many have moved* [from Libertador]. *These days they keep moving, among other reasons because a location in Chacao gives prestige."*

This is confirmed by a Department Manager from Banco Federal who has no problem admitting that, *"Status is part of the reason why so many banks are moving to Chacao and El Rosal."*

Recently arriving from Libertador, Kodak is very clear about the advantage Chacao has as a *"*[…] *a more 'corporate' location – it represents the company better, that is to say, the localization in Chacao is prestigious, it improves the image of the company."*

What makes Chacao a more 'corporate' location is of course the presence of a high number of other corporations in the municipality's down town area which is of limited extension. The many, and often quiet new, high-rise constructions give an almost futuristic touch to Chacao within the confines of an otherwise run-down Caracas (See photo 7, next page).

Photo 7. Centro Lido, Chacao. Photograph: www.chacao.gov.ve

Both the national as well as the transnational companies seem very conscious about the image implied by their location. DigiTel-Tim for example, considers Chacao to be, *"a very interesting location from the point of view of a corporation that wants to have an image."*

And this is precisely because, *"the area is a renowned business area in the city. Where the important firms are."* In fact he says that,

> *"the proximity is not really that important when it comes to maintaining the contact with these other firms. Our business transactions don't happen through the main office here. It's about prestige."*

The Corporate Accounts Director at IBM explains that one of the reasons why IBM moved from Libertador some thirty years ago was to have a building of their own and not to rent, because it *"gives prestige to have an asset like this (own building)."* This is especially he says, because all the other telecommunications firms in Chacao are renting their offices and simply pay to have their logo on the building.

The prestige that a location in Chacao involves is related to any other advantage that Chacao may have and that the public, or at least the corporations and their clients, are aware of. The on-going agglomeration of prestigious firms in Chacao contributes to the prestigeousness of the area, which in turn contributes to further agglomeration, and again a sort of benevolent spiral-effect is produced. The conception of the municipality as a prestigious location is of course also connected with the image building efforts of the local authorities that are seeking to attract investments. I will look closer at those initiatives in a later section.

4.2.5 Proximity to other firms and services

A main concern for this thesis is to understand the reasons for the on-going agglomeration process in Caracas where many of the most important companies are locating within each others proximity in Chacao. In this section I will explore to what degree such proximity is a goal for the interviewed companies, either directly in the production process or in other more indirect ways.

All of the interviewed companies consider the geographic proximity to other companies important, but the companies differ in how they justify this need for proximity. Some companies emphasize that it is convenient to be close to the suppliers of inputs required in the operation of the companies. These inputs can be anything from the cement required by the construction companies to the more general category of 'producer services' that, as Sassen (chapter 2) argues, should also be considered part of the supply capacity of an economy.

As an example of how it can be convenient to have the first, 'traditional', category of inputs nearby, the Market and Communications Manager at the construction company A.S.S.A points out that to carry out projects it is not necessary for them to leave Chacao at all. They order cement from LaFarge (LaFarge figures among the companies that were interviewed for this study) and they get materials from distribution centers that are also located within the municipality. Likewise with the Director of Corporate Affairs at the tobacco company La Tabacalera Nacional who says their location in Chacao is advantageous in the sense that their suppliers are all located nearby.

Other companies prefer to emphasize the importance of proximity to suppliers of inputs in the form of different kinds of producer-services, also essential for the effective operation of the companies.

For the transnational companies that were interviewed, the importance of having hotels of good standard nearby was pressing. DigiTel-TIM says that hotels are important because, *"as a multinational company we have personnel in other parts of the world and when they come here we have somewhere to put them."* Along the same lines Statoil says that, *"The security of the area and the proximity of good hotels are important when there are visitors."*

As shown in the chapter on safety, the generally unsafe situation in Caracas increases the importance of having essential services nearby, because the immediate 'range' of the employees is limited to areas that are considered safe. The extra safety provided by the security personnel in the municipality of Chacao contributes to extend that range as a larger area can be considered safe. *This observation illustrates Sassen's (1994) view that the provision of security should be considered a producer-service.* Along the same line, The Vice-President of Statoil also considers the residential areas in Chacao as a 'service' that doubles as an important security factor, because they allow the employees to live safely within proximity of their place of work. IBM also points out how advantageous it is that, *"the employees have the possibility to pay all their services close to here,"* in the sense that, *"there are facilities that allow the employees to have a possibility to have a break in the work routine without it becoming a security problem."*

All though all the banks have subsidiaries in Chacao, the Director of Corporate Accounts at IBM says he often needs to go to the center in Libertador to meet with his business partners in banking because they usually meet at the banks headquarters, many of

which are still located in the West. In fact, he says, *"If I had business only with banks I would move to the center* [in Libertador], *because it's a long way for me to go to the banks."* When IBM does not move to center it is because, *"we have clients in industry and telecommunications also. For telecommunication clients this place is ideal. TelCel is just 10 minutes away, it's in Chacao. DigiTel is here.* […] *For the industry I have to go quite far, to Sucre."* For IBM the most important advantage of Chacao is that, *"Being here allows us to be at the same distance to clients that are in which ever limit of the DMC."* But he does not think that the benefits of proximity is what has been driving the agglomeration process. He explains that,

> *"The concentration of companies in Chacao is not due to a premeditated plan. The companies realize that it's a strategic place for what it has to offer and they move here. In the end in they're all here together: close to the clients."*

The President of the real estate agency Miguel Chacón & Associates also considers the advantages of that proximity to other companies of secondary importance to the agglomeration process, which in his opinion is primarily driven by other advantages that the area has to offer:

> *"The companies are interested in being in an urban space where there is a quality of life, environmental quality, personal safety, because they have contracts with their employees that have world wide standards where they have to guarantee them a lot of safety and quality in their stay. They come with standards that are so high that the only urban space that fulfills them is here. They are not here because they need to be together. They're here because this urban space satisfies the global standards they've got."*

In the previous section, the Vice President of Organizational and Human Management at DigiTel-Tim said that being in the area where the important firms are is not so important in itself (for the contact with the other firms) but indirectly, because it brings prestige.

That said, the proximity that agglomeration gives seems to be valued by companies for a variety of reasons, not least because it means being close to firms that receive their *outputs*. This seems to be especially true for companies like IBM, and also for another high-tech company like SUN Microsystems, but also Banco Federal. These companies can all be classified as producer-service *providers*, and proximity to their clients allows them to offer better services. Banco Federal explains that while many banks have headquarters in the center in Libertador they all take care to open, *"*[…] *a department here in the East* [in Chacao] *where they manage these corporate clients and the large scale operations."* This is also true however for a company like Fertec, a construction firm with long traditions in

Chacao, whose Director says that, *"Its better for Fertec to construct buildings that are as close as possible."*

The director of Kodak Venezuela, on the other hand, says such proximity is not important *"because the access is good for our clients."* In other words proximity would have been more important in an area with less favorable accessibility – which again is to say that it is the relative proximity mediated by the transport networks that matters. I will discuss the accessibility issue in a later chapter.

In this section the proximity to other companies has been described as a relevant factor for how attractive the companies consider a locality to be, and there is no doubt that Chacao satisfies the companies' requirements well in this respect. Proximity has a relational aspect to it, linking it to issues of accessibility and infrastructure. The issue is also closely and importantly linked to questions of prestige and safety. From what Sassen writes about the increasing importance of access to so-called producer services it would be reasonable to expect such services to play a significant role in contemporary agglomeration processes, and the evidence from Chacao does indeed suggests that both the providers and the consumers of producer-services understand their proximity to be clearly beneficial for the production process.

4.2.6 Proximity to national and local public administration

The companies that have been locating in Chacao over the years have done so in spite of the fact that almost all of the Venezuelan national public administration is located in the traditional CBD of Caracas, in Libertador. The increased responsibility that has been awarded the local municipal authorities within the DMC in the course of the decentralization process that was initiated in 1989 may to some degree have compensated for possible inconveniences that the distance to the national authorities brings. I will try to explore whether that distance is perceived as inconvenient by companies in Chacao and, if so, whether it constitutes a significant drawback for Chacao as a business location.

In general the companies do not describe it as very problematic to have the national public administration in Libertador. Most consider it more or less inconvenient, while some actually say it is an advantage. Chacón & Associates and A.S.S.A belong to the last category. The President of Chacón & Associates explains this positive view of the distance

to the national public administration thus, *"*[…] *it's a good thing, because the public sector brings the* [real-estate] *prices down. Because demonstrations are generally concentrated around the installations of the public sector. Close to the presidential palace you will find buildings with a lower value. It's a situation particular to Venezuela and third world countries. I imagine that in London one would want to live close to the 'number ten'."*

It is important to keep in mind that the national government is fiercely opposed among many of the wealthier inhabitants of Caracas. This is indicated by the voting patterns in the August 2004 referendum, where a large majority of 80% (www.cne.gov.ve) of the inhabitants in the small but relatively wealthy municipality of Chacao expressed their wish to recall the mandate of the sitting President. Perhaps this antagonism towards the government sheds some light on the Project Administrator at A.S.S.A's exclamation that, *"Thank God we're not in the center closer to the public administration!"*

Several other companies also portray the distance to the national public administration as unproblematic, but rather than suggesting that the distance is advantageous they emphasize that it is easily overcome as a result of the decentralization public functions and/or of the efficient means of transport available on Chacao. The Director of Corporate Affairs at Tabacalera Nacional for example, explains that, *"the accessibility and means of transport, like the metro, permit relatively fast travel to the buildings of the central government's administration buildings."* The Account Manager at SUN Microsystems shares this opinion – he says that, *"The Courts, the Ministries and the National Congress are easily accessible by the metro – which' proximity is very favorable for Chacao." Also* the Market and Communications Manager at LaFarge agrees with this, pointing out that in Chacao it is easy to access not only the metro, but also the intracity highways:

> *"It is not important for Lafarge to be close to the public administration and the government. When necessary to go there, Libertador is close as the metro and highways supply a good connection with Libertador. There is the highway, Francisco de Miranda, and the Cota Mil* [highway] *that takes you East or West. We are well situated. The internal mobility is good."*

The Director of Kodak Venezuela also seems to share the perspective that the good accessibility to means of transport outweighs the distance, but she also emphasizes that with the decentralization process the visits to the center are less frequent - the distance she says, "*is not a problem at all. We only go to SENIAT* [the tax office] *and it's within reach of the metro*. […] *The rest of the things are done at the municipality of Chacao that's here next doors, and also it's possible to do a lot of things thru the Internet when it comes to Chacao."*

This quote illustrates how the decentralization process has brought the public authorities closer (literally) and it also suggests that Chacao is better prepared to take advantage of digital infrastructures in its service-provision. The interviewees from DigiTel-Tim and Banco Federal also emphasize that *the decentralization of public authorities has been beneficial to their operation in Chacao as it effectively decreases the distance to these functions*. It is reasonable to assume that having the public administration in the traditional center is a disadvantage for these companies although only Banco Federal and IBM admit this explicitly.

For Banco Federal the distance to the public authorities in the traditional center is a disadvantage that is compensated for by the comfort and accessibility that Chacao offers. The Account Manager at IBM explains that to have the government in the traditional center complicates things:

> *"You have to have an appointment and get to it in time. So it's obviously an advantage to be close to it. To give it service and get on time to the appointments. And obviously, to lower the costs of transport. Because all the representatives need to get there by taxi and return, and the company pays that. Its not the same with a taxi that goes to PDVSA* [in Chacao] *for 4000 Bs in 10min, and a taxi that goes to the center for 8000Bs. Both ways son 16000 against 8000, double costs, and this expense weighs significantly."* […] *We go there a lot. We need to have appointments beforehand and go in taxi. It's not that "time consuming", but a taxi bill of 16000 Bs* [*7 US$*] *is significant.*

It is interesting that it is the cost rather than the time factor that is problematic for IBM. This observation does not support Sassen's suggestion that the time-factor has become so decisive for how business is organized spatially that *locations offering proximity to services remain attractive even when they are expensive*. Proximity remains important however. From the interviews it is reasonable to conclude that proximity to the public administration is important although some companies are reluctant to admit that proximity to the present government is something they seek. On the other hand the companies' location in Chacao provides good access to metro and/or highways, and the decentralization process has brought more government functions down to a municipal level, both administratively and geographically. The government functions attributed to the municipality of Chacao are particularly easily available for the companies located in the municipality because its limited extension guarantees proximity and also because in Chacao they are increasingly administered through the Internet. The use of Internet in the public administration of the municipality should be considered a novel way of overcoming the spatial friction that the geographic distance between the companies and the municipal offices implies, no matter

how small it is. In accordance with Graham (2001) however the uneven use of such digital infrastructure within the DMC can also be understood both as a symptom and a cause of the uneven development of space-time relations in the city. It would not be conceivable that Libertador make priority of offering on-line access when almost half of the households in that municipality do not have a connection even to basic networks for telephony.

4.2.7 Physical accessibility

As shown in the sections on safety and proximity, physical accessibility definitely plays an important part in the companies' assessment of areas for their potential location. In the following, some further considerations of the physical accessibility factor will be presented. Physical accessibility is complementary to digital accessibility and also relates to the possibilities of connection existing between a certain place and other places (Zoido et al. 2000). The physical accessibility of an urban area is defined by the availability of various transport infrastructures serving the area. Such transport infrastructure can take the form of roads, highways, metro lines, bus connections, parking places, sidewalks and so on. Because physical accessibility so often is part of definitions of centrality, this topic is particularly relevant to the discussion of the rise of Chacao as a new CBD in Caracas. Transport infrastructure generally increases accessibility, although as pointed out in the section on safety, it will not increase accessibility equally for all user groups.

The interviewed companies all consider the physical accessibility of Chacao to satisfy their demands relatively well. Chacao has 4 metro stations within the reach of its central axis, and three major highways pass through the municipality from East to West. Although the companies emphasize the importance of the road infrastructure, the metro is also considered important and especially when it comes to connecting Chacao with the traditional center where the road infrastructure seems to be saturated and circulation is far from satisfactory.

According to the Director of Corporate Affairs at La Tabacalera Nacional, *"the infrastructure* [in Chacao] *is newer than in other municipalities. And has better maintenance, principally in terms of viality."* Considering the standard of the road infrastructure however it's important to keep in mind that the roads running through Chacao also need to pass through other municipalities where their maintenance may not be equally satisfactory. For the Vice President of Statoil Venezuela this means that *"Getting to and from the international Airport (Maiquetía) is a challenge, you have to go through town*

[Libertador] *and it takes time."* Keeping that in mind, a location in Chacao still means that the access to the three large highways that represent the only practical way of moving across the city with a car is better than in alternative locations in Libertador.

For the director of Kodak Venezuela the access is better in Chacao because, *"Here we're closer to the all the important exits. The highway is closer and we don't have to pass by all the traffic of the Boulevard* [de Sabana Grande] *and all the traffic of Libertador Avenue."* The Vice President of Organizational and human Management at DigiTel-Tim underlines that this as an essential advantage: *"The criteria for maintaining the company here have to do with the privileged location in the city – the accessibility, the viality."*

The Corporate Account Manager at IBM, situated next doors to DigiTel-Tim, says that the accessibility implies a centrality in the sense that, *"Being here allows us to be at the same distance to clients that are in which ever limit of the DMC."* As mentioned in the section on proximity to other firms and services, the Director of Kodak Venezuela does not consider it too important to be close to the clients precisely because *"the access is good* […]*."* In a sense then the good accessibility of the area allows the firm to locate there even if the clients are at a distance.

In a similar fashion the Director of Fertec also emphasizes the importance of the viality and centrality that Chacao has to offer: *"The Highways and the accessibility by car are very important. The viality is an advantage of Chacao. Chacao has a central location and this is also its great advantage. Fertec is close to its clients."* He explains that Chacao has the necessary resources to keep the streets in a better state and that Chacao counts with its own traffic police that helps to resolve accidents and maintain order in the streets. For the Account Manager at SUN Microsystems the order that has been obtained means that, *"There are less street vendors in Chacao and that makes it safer and easier to travel by car."*

At Fertec it is stressed that the municipality's relatively new buildings are *all* equipped with underground parking places. Adequate viality would of course be of little use without infrastructure for parking. The existence of such facilities in Chacao strikes an important contrast to Libertador that, according to the interviewee from Banco Federal, *"*[…] *doesn't have anything near to enough parking spaces."* She says that in effect the over-ground transport systems in the center have *collapsed* and that *"the only thing that works is the metro."*

There is more variation between the companies however as to how greatly they value accessibility by public transport. As mentioned in the section on safety, the two companies that do not have the metro nearby, IBM and DigiTel-TIM, in fact considers this to be an advantage because it complicates the access for non-car owners (*i.e.* the poor). The rest of the companies are more or less content to have the metro close. The General Manager at TelCel, for example, says that *"It's important to have the metro close because of the employees that don't have their own vehicle*." While the metro is less relevant for Statoil where only two or three employees do not drive a car to work.

The metro is probably more important to service-providers as banks because it facilitates the access for the clients. As Banco Federal, for example, that says *"The proximity to the metro gives us a larger volume of operations because of the concentration of people in these zones."* Generally the metro is considered a safe a safe way of traveling, and perhaps the most important access way to the traditional center. The Account manager at SUN Microsystems considers the four metro stations in the Chacao area to be a great advantage for the municipality:

> *The banks and the financial institutions have located along the metro line – the closer to the metro, the more expensive the property. The Courts, the Ministries and the National Congress are easily accessible by the metro – which' proximity is very favorable for Chacao."*

Harvey's understanding of the inherent tensions in capitalist society allows him to predict a constant redevelopment of the urban infrastructural landscape of cities as new configurations of space-time mobilities are required to maintain profitable production, with the implication that old investments in infrastructures are left behind as sunk-costs whenever the development of a new area results more profitable (chapter 2). This interpretation of urban change seems to be compatible with my observations from Caracas where formidable infrastructure investments in the form of buildings and transport-systems in the traditional center that has supported a flourishing CBD for over 50 years seems to have become saturated, and that development has taken the form of new construction in the East rather than of an upgrading of the existing center. This understanding fits well with what has been said about unsatisfactory parking facilities in Libertador – such parking facilities have become necessary for accessibility by car, and while this has not been planned for in the older development of Libertador, Chacao offers underground parking space as a standard.

The saturation of the over-ground transport infrastructure in Libertador may also have be contributed to increasing the importance of the metro system for the companies that are located in Chacao but still to some degree dependent on access to the government offices in the traditional center.

It has also been suggested in the interviews that the administrative decentralization, or segregation, of the administration of the road infrastructure has further capacitated the provision of adequate road-infrastructure in the municipality of Chacao that as a result has more resources, and also more possibilities to follow its own distinct policy of road maintenance and order.

4.2.8 Municipal administration / Financial incentives

In order to understand the agglomeration process in the municipality of Chacao it is necessary to also understand how possible entrepreneurial strategies of the municipal regime contribute to making the municipal area more attractive for investment. In chapter 4.3 I will look at the municipal authorities of Chacao's strategies and possibilities to attract investors, what interests us here is to understand how the policy of the local political administration is perceived among the investors that were interviewed, and how this adds to the other perceived advantages of the area that I have discussed above.

There are two expenses that seem to be of special concern for the companies: one is the tax that is paid as a percentage of the annual revenue; the other is a fixed tax that the companies pay for the use of the land for commercial purposes, the *patente*.

Some of the interviewed companies expressed discontent with the tax policies of Chacao, the Director of Corporate Affairs at La Tabacalera Nacional, for example, says that: *"In the case of our line of trade, cigarettes, Chacao is the municipality that has the highest taxes of the DMC. This constitutes a barrier for our principal business partners, our distributors and clients, that wish localize in Chacao."* For La Tabacalera Nacional then, the tributary policy of Chacao is understood as a clear territorial disadvantage. The Director of Kodak also says that, *"The taxes in Chacao are a little higher than in Libertador, but the cost of security and m² compensate for that."* In the same way the Director of Fertec is also quick to mention that although the municipality offers many advantages, *"The disadvantage is the higher costs, the taxes."*

According to President of the real estate consultancy Miguel Chacón & Associates however, *"*[…] *the tributary structure (taxes) in Chacao is minimized in comparison with the rest of the municipalities. This is a big incentive for the moving of firms towards this urban space because it minimizes the cost-structure"*

With a concrete example of a transnational company that the agency is currently assisting in moving to Chacao he explains that the reason they decided to locate in Chacao were the financial advantages that the administration in Chacao offers. When moving to Chacao the TNC will be, *"*[…] *paying 20% more for the land use tax, the* patente*, but its doing so because they* [Chacao] *are lowering the revenue taxes some 30%."*

What seems to be a difference in opinion between the companies regarding the tributary policy of the Chacao government might be attributed to the existence of two different taxes where one is higher, and one is lower, because it is not always clear which tax it is referred to. It is also possible that this difference of opinion arises from the fact that the tax incentive mentioned by Chacón is offered to companies that are *new* to the municipality and therefore does not affect the companies that are long established in Chacao. Chacón explains this as a clearly entrepreneurial initiative on the part of the Mayor of Chacao:

> *"*[...] *the Mayor is a leader that wants the firms to come to his territory. So the Mayor gives services, safety, facilities, incentives, because he is a Mayor that has understood that his municipality as urban space is a company. And that he has to create demand for this company."*

And the Mayor does seem to have been successful in the marketing of his municipality; at least the interviewed companies seem to conceive of the local government as a relatively efficient entity, less plagued with corruption, and more capable of maintaining a good environment for business, especially regarding safety and order in street. As the Project Administrator at A.S.S.A says, *"In Chacao there are rules, and the rules must be obeyed because the police are there."*

The Vice-President of Organizational and Human Management at DigiTel-Tim says the most important advantage with the Chacao government is the way it has maintained a continuity in its administration, that, *"Having passed by now 3 or 4 periods of municipal government, it has maintained a line of stimulation of the development of this kind of real estate* [*i.e.* corporate and upper-range residential]*."*

The company interviews present an overall positive view of the governance strategy of the municipality of Chacao. The municipality, with its policy of stimulating a certain kind of development by attracting investors, is considered by the companies as responsive to their interests. The success and nature of the financial incentives remain unclear, but it is an interesting policy aspect that I will look into in chapter 4.3. As noted by Harvey in chapter 2, the implementation of entrepreneurial policies aimed at attracting investments in a competitive environment could result in competitive tax cuts in a 'race to the bottom' that in the end might benefit only the investor and undermine general public interest. Greater territorial unevenness is also if the investors agglomerate in the area that offers the best deal. So far Chacao is probably able to maintain a tax level that is perceived as high by some of the companies because the sum total of advantages Chacao offers is understood to outweigh that disadvantage.

4.2.9 The real estate market

As mentioned in the background chapter, the real estate market in Caracas and especially in Chacao has been far from static over the last two decades. The economic liberalizations since 1989 and the financial crisis of 1994 have had very direct implications for the construction and availability of office buildings that might prove to be very relevant factors for the companies' location within the DMC.

According to the President of the Real Estate Consultancy Miguel Chacón & Associates the most important reason for investing in Chacao is that*, "Chacao constitutes an urban space that represents a relatively stable economy. That is to say that it's an urban space where there are mechanisms of offer and demand that generate an increase of prices. This makes it rentable to acquire real estate in Chacao."*

In other words, *by locating offices to Chacao the investment is more likely maintain or even increase its value*. And because that perception is common also among the banks, it is relatively easy to finance investments in Chacao: *"The banks are ready to finance the real-estate infrastructure in Chacao because in Chacao the asset that would serve as guarantee to obtain the loan is correspondingly valuable."* In his opinion this situation along with the safety benefits of Chacao, clearly weigh up for the somewhat higher prices in the area.

In a similar manner, the director of Kodak Venezuela balances the higher tax spendings in Chacao against much lower security costs, but she says the m² price was actually *lower* in Chacao. It is important to take into account that Kodak Venezuela has been downsizing and that, according to the Director, the tower Kodak moved out of in Sabana Grande in Libertador was of a very high standard, although badly located. The Director of Corporate Affairs at La Tabacalera Nacional also says the company *"found a better real-estate offer (cost-benefit) in Chacao,"* without specifying which factors were part of that cost-benefit equation.

LaFarge moved from Libertador to a prominent tower, the Torre Country Club in Chacao, that they had constructed and owned, at the very beginning of the 1990s. The company, which before was The National Cement Factory, was bought by the French TNC LaFarge during the crisis year of 1994 after which *"The company established itself in the current tower because it was the economically rational thing to do."* It could seem that the comments by LaFarge coincide with the dynamics in the real estate market as these were described in chapter 1. The financing of a number of recently built office buildings in Chacao came to an abrupt halt as a consequence of the financial crisis of 1994 that forced many owners to realize their real estate assets even at a loss and that pretty much converted the real-estate market of Chacao into a market for letting.

A market for let office-space of first-class, particular to Chacao, is likely to contribute to lower entry-costs lower for enterprises that are establishing in the city. This particularity of the real-estate market in Chacao, along with lower security costs, may explain why some of the companies say it is more economical for them to have the offices in Chacao.

The Manager of the Chacao Department of Banco Federal tells us that when the banks' headquarters are still located in the Traditional CBD in Libertador, with all the problems with the transport and communication systems there, it is only because, *"they're big constructions. They can't move easily… The constructions are valuable. And they were made precisely for the purpose and there's no way to move them."* As large constructions, representing enormous investments, the headquarters of the largest banks are good examples of how such investments, as sunk costs, produce an inertia in that scenario of change depicted by Harvey in chapter 2 as an inherent part of the dynamics of the urban landscape in the capitalist city.

The Project Administrator of the construction company A.S.S.A, says there has been much less demand for new office-buildings in Caracas the last few years: *"there is a crisis in the construction sector and little demand."* This description of a falling demand coincides with what was said in chapter 1 about how the general economic liberalization of the Venezuelan economy may have contributed to a proliferation of new corporate real-estate construction that was put out for sale in the beginning of the 1990s but later made available as *let* office space following the financial crisis of 1994. The sudden availability of let office space along with fear of crisis situations like that of 1994 is likely to have made it less tempting to invest in large new real-estate projects although the demand for offices in Chacao is said to have been stable.

4.3 Administrative issues

In chapter 1 the administrative situation of the DMC was presented and it was suggested that the combined fragmentation and decentralization process could have contributed to the agglomeration in Chacao. The findings from the company interviews support that suggestion in the sense that many of those factors that are decisive for the companies' location in Chacao – such as a better safety situation, a cleaner and more pleasant environment, and prestigeousness – can be maintained and improved thanks to Chacao's status as an independent municipality.

4.3.1 Administrative fragmentation and economic segregation

Since its creation as a municipality, there has been a great disparity between the per capita revenue of Chacao and that of the remaining 4 municipalities of the DMC (see figure 1, chapter 1). The decentralization law also acknowledged the municipalities much greater control with the income generated on municipal territory, reducing cross subsidies very much to the benefit of Chacao that enjoys significant tax revenue from the economical activity on its territory. This income allows Chacao to satisfy the requirements of its investors better, not least regarding the provision infrastructure and services.

An Architect at Chacao's Office for Strategic Planning confirms that maintaining the level of investments and business activity is strategically important because the companies that are located in Chacao represent a very significant income for the municipality. She estimates

that on an average about 80% of the municipal budget stems from taxes levied on the companies.

Table 1. Income Budget for Chacao 2002 (Billions of Bs.)

Type of Income	**Amount**
Patentes for Industry y Commerce tax	51,140,740,000
Urban Real Estate taxes	2,591,387,372
Other taxes	2,913,872,389
Other Non-Tax Income	911,734,081
Various	5,159,652,810
Income from Property	1,382,480,000
Situado Municipal (State-municipal transfer)	2,554,872,414
Total Ordinary Income	**67,010,029,694**
Total Extraordinary Income	**2,865,794,688**
Total Income	**69,875,824,382**

Source: www.chacao.gov.ve

From table 1, which shows the incomes budgeted with in Chacao for 2002, it can be seen that the *Patente* for Industry and Commerce clearly represents the most significant income for the municipality. In accordance with the estimation from the Office for Strategic Planning, this post constitutes more than 73% of the budget.

The *patente* is a tax that companies in Chacao pay annually for the right to operate in the municipality. Another interesting post on the budget is the *Situado Municipal* which is a municipal subsidy that the states distribute among their municipalities. In the World Bank's (1997) report on the decentralization process in Venezuela, it is concluded that in average for all the municipalities in Venezuela, *"The* Situado Municipal *is* […] *the largest source of revenue to municipalities in aggregate accounting for approximately 70% of municipal revenue."* Comparing Chacao's budget with the World Bank's estimation of the country average, it becomes clear that Chacao's incomes do not represent those of an average municipality as the *Situado Municipal* barely accounts for 3.7% of the total revenue. All the states are required by the LORM (1989) to transfer a certain sum, the *Situado municipal*, to the municipalities that they comprise. 70% of the this sum is distributed according to the

number of inhabitants in the municipality and as a small municipality Chacao receives a modest sum, but this does not explain why the *Situado Municipal* represents such an insignificant *share* of the total budget. Rather, this disproportionality stems from the tremendous weight of the income from the *patentes.*

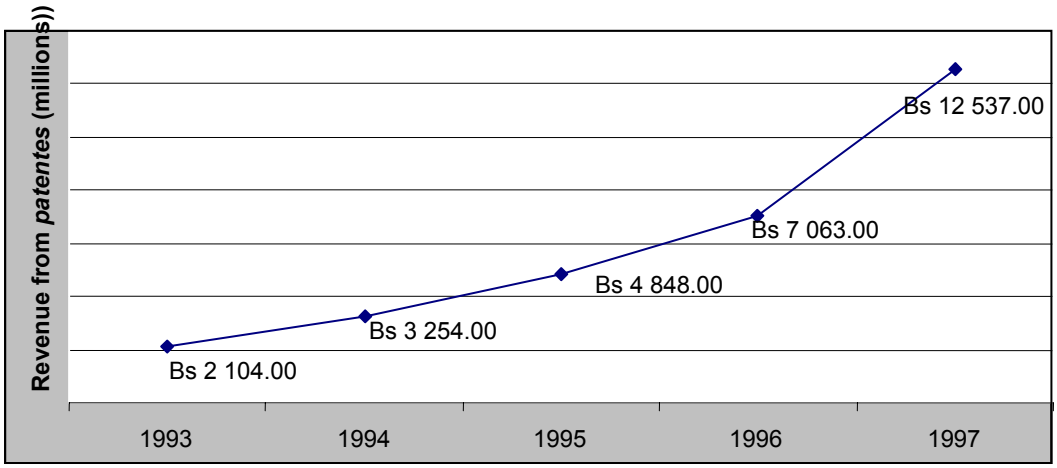

Figure 2. Revenue from patentes *of industry and commerce in Chacao (adjusted for inflation). Source: Gonzalez 1998.*

Figure 2 shows the impressive growth in tax revenues during Chacao's first years. The increase in revenue from companies located in Chacao from 1993 to 1997 is as high as 595,9%, a number that illustrates the massive movement of companies towards Chacao as well as the beneficial effects of this agglomeration process for the municipal budget. According to Gonzalez (1998) it also shows the result of Chacao's efforts to establish an effective system for taxation. While the low level of economic activity in many municipalities often rules out all possibility of establishing an effective system for taxation at a sustainable cost this was possible in Chacao precisely because of its initially favorable economic and social conditions.

4.3.2 Competitive climate

The substantial rents Chacao attains from office activity illustrates how important inter municipal competition for investments has become after the decentralization of the DMC. Given the continued agglomeration of companies in Chacao, Chacao has clearly succeeded in maintaining its competitiveness in this respect. This success in attracting investments

reflects Chacao's many favorable assets, some of which result from the municipality's proactive, or *entrepreneurial*, policy towards investments and its status as municipality.

The territory of Chacao's ability to compete for investments was greatly improved with its status as a municipality and the decentralization. For one thing it made it much easier to convey a positive image of the area when it is no longer part of a poverty-ridden municipality like Sucre. Chacao's municipal status also defines it a statistical entity, and as such it comes out very favorably in intra-city comparisons. The crime rates for instance, that are a very important factor for the interviewed companies, are a case in point: When compared to an extensive municipality like Libertador, with at least 26 times as many inhabitants and infinitely more complex social challenges, Chacao is bound to come out well in crime statistics. Chacao has a reputation for being a safe area and the statistics support this, but there might be other equally safe areas the size of Chacao that are located within the borders of Libertador or Sucre and therefore are not counted as statistical areas. The same would be true for other numbers that carry status, such as average income or connectivity to Internet. The very application for independence that was put forward by representatives of a Chacao residents can in a sense be understood as an 'entrepreneurial' strategy aimed at encouraging local growth.

4.3.3 Entrepreneurial strategies

After municipal status was achieved the Chacao administration has proactively sought to improve its competitiveness by employing typical entrepreneurial initiatives. The municipal administration of Chacao is very conscious of the importance of securing investments, and a new office has recently been opened with that explicit task: *La Oficina de Promoción de Inversiones* (Office for the Promotion of Investments). The Promotion of Investments Manager explains that the creation of her office is a way of consolidating Chacao's strategy of attracting business. A strategy that coincides with the, *"international tendency of City Marketing"* where the idea is, *"to market all you have to offer in order to attract investors, and also people that would like to become residents."* She adds the qualification however that, *"This is being done in many part of the world, but with cities. We are trying to do this with a municipality."* According to the Promotion of Investments Manager, Chacao intents to convey to potential investors an image of, *"a municipal government that is transparent and service-oriented, that offers tax incentives, that is strategically localized, and that offers first class infrastructure."* Her job is to make this image reach the investors and to improve

it. The Internet is used intensively to spread information about what Chacao has to offer and the advances that are made. Chacao conducts surveys among the users of its territory in order to chart and respond with better service. Among the interviewed companies, Statoil Venezuela, praised this particular initiative of the Chacao government and many of the other companies also expressed that they were content with how their local government responded to their needs, especially regarding services and safety. As observed in chapter 4.2, there was also widespread agreement among the companies that the municipality offered a strategic location in terms of access to services and infrastructures. The financial incentives mentioned were less known among the company interviewees. The major financial incentive that the Promotion of Investments Manager mentions is a 50% tax discount during the first 3 years for companies that are new to Chacao. The only company that mentioned it in the interviews was the real-estate consultancy Miguel Chacón & Associates, but this is not surprising however as this incentive is aimed exclusively at companies that are new to the municipality, and was introduced in 2003. As mentioned in chapter 4.2, the President of Miguel Chacón & Associates did consider the incentive very effective, and he also praised *the Chacao administration's general efforts to cooperate with the private sector by running the municipality as a company that they need to create a demand for.*

An Architect at the Office for Strategic Planning explains that Chacao maintains its attractive position as a business location because of what it has to offer the investors and in that respect *"Chacao's position is favorable because its one of the richest municipalities of the country. That means it can do things because it has money. And it also means prestige."*

If Chacao started off with a relatively high income resulting from the relative density of business on its territory, the good income has in turn favored the municipality's efforts to increase that density further – between 1997 and 2004 the revenue from economic activity increased by 57,6% (Estimation based on Alcaldía de Chacao 2004). A 'benevolent spiral effect' consolidates Chacao's position as an attractive location within the DMC as income from the firms that have established on municipal territory is reinvested in the same territory with the explicit aim of keeping it attractive. The high municipal spendings on law enforcement illustrates this point (see table 2).

Table 2. Distribution of spendings per sector in Chacao, 2001.

Sector	**Billions of Bs**	**% of total**
Housing, Urban Development and Services	12.0	17
Municipal Police	*11.7*	*17*
Social Security	10.9	16
Management	8.8	13
Municipal Traffic Police (IATTC)	*5.7*	*8*
Metropolitan Government	5.3	8
Education	2.2	3
Culture	3.5	5
Health	3.0	4
Civilian Protection	2.2	3
Budgetary Corrections	1.8	3
Social Development and Participation	1.3	2
NGOs	0.7	1
Total	**69**	**100**

Source: www.chacao.gov.ve

Table 2 shows the spendings budget of Chacao for 2001. Taken together the spendings on police and traffic police amounts to 25% of the total municipal budget. Both the interviewed companies and the municipality itself emphasize safety as an important distinguishing feature of Chacao within the DMC and the fact that law enforcement is by far the biggest post on the budget indicates that Chacao has achieved this reputation for lower crime rates by means of its superior resources.

4.3.4 Variations in quality of infrastructure and services

After the responsibility for the provision of services, including the police, were transferred to the local level, the quality of the services depend much more on the different municipalities' ability to generate sufficient income, which, as figure 1 (chapter 1) shows, varies significantly. Chacao's per capita income was more than 5 times the average for the remaining municipalities in the DMC. In this situation many of the local governments have simply proved unable to cover the costs of these new expenses (Mitchell 1998).

The decentralization process in Caracas was indeed expected to force the *"municipalities* [to] *find new methods to finance public goods through cost recovery"* (World Bank 1997, 53). And, in effect, the municipalities have been looking for alternative ways to finance services. Mitchell (1998) observes that, *"To provide these services, municipalities* [have been] *forced to negotiate with private interests in exchange for favorable zoning ordinance and approval for construction permits – what amounts to a de facto privatization of infrastructure"* (Mitchell 1998, 9). According to Mitchell this also happens in Chacao. For example, *"planners working for Chacao have demanded such things as the repair of water pumps, the paving of streets and the installation of street lights in exchange for construction permits"* (Mitchell 1998, 11). Of course Chacao will have better bargaining power *vis-à-vis* the private interests in such negotiations compared to the other municipalities as the territory of Chacao is currently that which is most attractive to investors.

Such public-private partnerships, though informal or extra-legal, are said to be common and widely acknowledged but Chacao's Office for the Promotion of Investments denies the existence of this kind of cooperation (Interview w/Director, Mitchell 1998). To the degree that the municipalities are forced to use this kind of public-private partnership for the construction and maintenance of infrastructured services, the possibilities for a publicly planned development are clearly reduced. And in addition to the decentralization's impact on municipal finances, *the possibilities for quality service provision will depend even more directly on the interests and presence of private investors in the area*.

There are indeed significant differences in the quality of infrastructure provision across the DMC, and most notably between Chacao and the rest of the municipalities in the DMC. Today, 13 years after the parish of Chacao obtained municipal status, some of the differences, especially from neighboring Libertador and Sucre, are easily observable. Most obvious perhaps is the great variation in the standard of the roads. According to a Sociologist at Penthouse real estate consultancy a telling example is how "*the Av. Libertador is 'express' in Chacao but 'normal' in Sucre.*" Often streets that pass through the DMC will be lit up only where they pass through Chacao where the authorities can afford the necessary maintenance and surveillance. Other differences are less easily observed but the national census of 2001 reveals that the percentage of registered households without running water is 3.5 times higher for the DMC than for Chacao, and that while 41.7 % of registered households in the DMC are without connection to the telephone network, the number for

Chacao is only 6.5%. And while only 62% of registered households in the DMC have their garbage collected, 95% of the Chacao households do.

These data reveal some of the striking contrasts between administrative areas in the DMC, and given the relevance of these factors to the companies' location strategies, the uneven development is likely to continue. Little is being done to prevent a spiraling development where the municipalities are more and more dependent on private investments to generate a revenue that in turn is needed to maintain and encourage future economic activity on municipal territory. The municipalities have no politics on fiber optic infrastructure but, as was demonstrated in chapter 4.2, the fiber optics networks are likely to coincide with and reinforce existing business agglomerations.

In Chapter 2 Leitner and Sheppard (1998, 296) pointed out the close connection between urban entrepreneurialism and inter urban competition; and the case of Caracas and Chacao has shown that there is also good reason to associate entrepreneurial policy with *intra* urban competition. The form of strategic planning undertaken by the Office for the Promotion of Investments in Chacao falls well within the definition of entrepreneurialism as described in chapter 2. As was said in that chapter most of the theory on the subject of entrepreneurialism or city marketing deals with inter-city relations, but, as pointed out by the manager of this Chacao office, the inter-municipal, *intra*-urban relations in Caracas can be considered parallel to the relations between cities in this literature. Furthermore, Harvey's (1989) argument that entrepreneurial (inter city) competition for investments is a zero-sum game that is bound to produce losers as well as winners – in other words a game that produces polarization between places – is a fitting description of the *intra* urban competition resulting from the administrative fragmentation and decentralization in Caracas. The increased importance of competitiveness has not simply been an incentive for administrative efficiency; it has contributed to an uneven economic development that has strengthened the economic polarization of the city along the new administrative borders. In this context Chacao's employment of entrepreneurial policies to attract investments can indeed be related to polarization at an intra urban scale in terms of both municipal income and the quality of service provision.

5. Conclusions: Agglomeration and polarization

The agglomeration of private investments in Chacao has a variety of causes. The interviewed companies consider the most important factors for their location in the municipality of Chacao to be digital and physical accessibility, availability of services, safety, and prestige. Chacao is considered to satisfy these locational preferences better than other areas in Caracas, and it has a privileged position as a target for investments in both a relative and absolute sense. Initially the deterioration of the traditional CBD, in part resulting from the saturation of the built environment in Libertador where both the formal and informal economic activity has outgrown the existing infrastructure (insufficient roads and a lack of parking spaces), led investors towards alternative areas towards the East where there was room for expansion. What was then the parish of Chacao quickly emerged as a strategic location especially in terms of physical accessibility owing to its topography, its geographical centrality, its well functioning infrastructure for transport (roads, parking, metro), and its prestige as a wealthy area with relatively few social problems. The displacement towards Chacao was intensified in the wake of economic and political reforms after 1989. Significantly, Chacao's independence as a municipality has benefited the locality by securing it greater control with the income generated on municipal territory. This has made it possible to improve the standard of infrastructure in the municipality and to proactively implement policies aimed at attracting investments.

The growing importance of advanced ICTs for economic activity is also significant for how new centralities have developed in Caracas. The companies that are agglomerating or *re*-agglomerating in Chacao seem to require high-speed access to digital infrastructure in their day-to-day operation. This infrastructure has been developed in an unregulated and liberalized environment by various private enterprises, and its limited extension is largely due to the condition of profitability imposed on investments in new canalization. The various and overlapping fiber optic networks largely coincide with the central areas of Caracas that have a high presence of major companies.

The displacement of companies towards Chacao is self-reinforcing in at least three ways: Firstly, the companies that move to Chacao bring their tax-contribution with them and it is this revenue that makes it possible for the Chacao administration to further improve the attractiveness of the municipality with respect to the factors mentioned above through

entrepreneurial strategies. Secondly, the concentration of major companies in Chacao is in itself an important pull-factor – it makes it necessary for parts of the service sector, reliant on proximity to their client companies, to move there too, and it also adds to the territory's status as a *prestigious* business area, a status that contributes to further agglomeration. Thirdly, the limited extension of fiber optic networks makes a location outside the central areas more costly for companies that require digital access. While this contributes to maintain the demand for office space in a well connected business area like Chacao, the presence of potential clients in the area also makes it a target for further developments of ICT-infrastructure.

The resulting spiral of growth, local to Chacao, is paralleled by a spiral of disinvestment in other parts of Caracas with consequences in the form of an intra-urban economic polarization that increasingly manifests itself territorially according to the recently drawn administrative borders.

The economic, administrative and infrastructural restructuring described above is consistent with scenarios associated with a shift towards post-Fordism. The changes, in terms of economic liberalization, political decentralization and the introduction of new ICTs in the economy, are reflected in the city's geography in important ways and illustrate how the outcome of political-economic and technological changes are not given. Concepts like 'the death of distance' and 'the end of cities' prove highly inadequate to describe the geographic developments of post-ICT Caracas. Instead the case of Chacao provides useful insight into the complexity of contemporary processes of urban change – the introduction of new infrastructure with novel capacities in terms of space/time compression is not innocent of existing power relations and within an unbundled and unregulated regime of provision any simple decentralization resulting from a 'neutralization of distance' is unlikely. In Caracas a *re-agglomeration* in Chacao has been observed and with it a relative economic and infrastructural marginalization of less central areas is taking place. The corporations in Chacao are integrated with the global economy through networked infrastructures that 'bypass' the municipality's immediate surroundings.

At the same time the case of Chacao shows why the causal role of new ICTs in the transformation of urban geographies should not be overestimated. ICTs are one of a variety of decisive factors for the location of corporate investments, and moreover that, these other factors have an indirect influence on the development of the ICT-infrastructure in the sense

that, to the degree that private providers of infrastructure are looking to maximize their profits they are likely to focus their investments within areas they consider to have a high density of potential clients – *along with the agglomeration of business there is a parallel agglomeration of communications infrastructure and it is not clear which is cause and which is effect*.

Apart from digital connectivity the interviewed companies' location strategies rely on factors that illustrate a *continued importance of physical spaces of representation and interaction* for which spatial concentration is still important. The agglomeration process in Chacao shows that physical proximity is still a factor in the geographical organization of economic activity. For instance, the availability of producer services is fundamental and a physical location in Chacao is attractive because it guarantees the availability of such services within what I have called a 'safe proximity'. In this way the issue of proximity between firms has to with the possibilities for *interaction*, but a density of important firms can also change a territory's qualities as a *representative space*, as illustrated by the prestige Chacao's has achieved as a 'corporate location'.

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Appendix

List of interviewed

Government officials

Municipal administration of Chacao.

- Architect at the *Oficina Local de Planeamiento Urbano* (OLPU, Local Office for Urban Planning)
- The Manager of The Office for Promotion of Investments
- Architect at the Office for Strategic Planning

Municipal administration of Libertador

- Architects at the Office for Strategic Urban Development

Metropolitan municipal government.

- The Director of Urban Planning at the Office for Urban Planning and Environmental Management

Local Experts

- Professor of Architecture at the Department of Urbanism, UCV
- Economist working with the real estate consultancy Miguel Chacón & Associates
- Sociologist, working with the real estate consultancy Penthouse
- Local representative of The United Nations Development Program in Caracas

National and multinational companies in Chacao

- Banco Federal. The Manager of the Chacao Subsidiary.
- Constructora A.S.S.A – Arismendi & Schummer. The Project Administrator.
- DigiTel-TIM, Venezuela. The Vice President of Organizational and Human Management.
- FERTEC. The Company Director.
- IBM Venezuela. The Corporate Accounts Director.
- Kodak Venezuela. The General Manager.
- LaFarge (Fábrica Nacional de Cemento). The Market and Communications Manager.
- La Tabacalera Nacional. The Director of Corporate Affairs.
- Miguel Chacón & Associates. The President.
- Statoil Venezuela. The Vice President, Chief of Staff.
- Sun Microsystems de Venezuela. The Account Manager for the Petroleum Sector.
- TelCel-Bellsouth. The General Manager.

Suppliers of telecommunications infrastructure

- TelCel. A high ranking Engineer
- NetUno. Engineer, Manager of Corporate Projects
- CANTV. A high ranking Engineer.
- AES (Electricidad Caracas). The General Manager.